icaros desktop

V2.0

Quick and dirty user/reviewer guide

by Paolo Besser

About this manual

This manual is a quick-starter guide. It will help you dealing with Icaros Desktop basics like installing, setting up the system and managing the GUI. A deeper, bigger user reference guide will be published later on. Stay in touch with www.icarosdesktop.org for more information.

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1. Introduction

The **AROS Research Operating System** is *a lightweight, efficient and flexible desktop operating system, designed to help you make the most of your computer. It's an independent, portable and free project, aiming at being compatible with AmigaOS 3.1 at the API level (like Wine, unlike UAE), while improving on it in many areas*. These lines, taken from the official Aros.org homepage, explain in a few words one of the most interesting open source projects available. Being distant from both Linux and Windows experiences, AROS is growing as a true alternative for people bored by the complex and resources-hungry competition. A *niche OS*, whose strongest features are speed, compactness, responsiveness, amazingly fast boot time and relatively tiny applications size.

However, like many other niche projects, AROS relies on few active developers. The team has already done a great job, re-implementing most of the functions of the original AmigaOS while improving them with modern features, such as an hardware abstraction layer, an original driver model, USB and TCP/IP stack, which allow AROS to be used for virtually everything today. The main issue, anyway, is the lack of drivers and applications, two holes that might be easily filled with more developers. Most of AROS applications have been placed on a repository called "The Archives", located at http://archives.aros-exec.org and a tool called AAEDT has been developed to help downloading software. These applications, however, are often difficult to install and configure for a novice user. Even AROS itself, relying on the old-age Amiga lifestyle, it's enough user-friendly for the middle/skilled user, but slightly difficult to manage for newbies.

And here **Icaros Desktop** steps in. Icaros Desktop started in November 2007 as VmwAROS, a pre-configured AROS environment for the popular VMware virtual machines. It came with a collection of applications and games already installed and configured, often with some hand-made scripts, that let the user run them as easily as clicking twice on a icon. Since then, Icaros Desktop turned into a real distribution which can easily run on real hardware or virtual machines. It is now available in two different flavours:

- **Icaros Desktop LIGHT** is a reduced version of the LIVE! DVD, which provides the core features of Icaros Desktop and can be burnt onto a single CD-ROM. Only ISO file is provided, there's no pre-configured QEMU virtual machine. It includes AROS system files, Icaros mandatory applications (web browser, text editor, word processor, timidity MIDI renderer, Audio Evolution 4, media player) and the AmiBridge subsystem, which allows almost-seamless integration of binary Amiga 68K games and applications.

- **Icaros Desktop LIVE!** is a pre-configured environment on a bootable live-DVD which includes everything the Light version has, plus about 2 gigabytes of games, emulators, multimedia editors, song trackers, graphics applications and many more: not the whole AROS software available on the Archives, Aminet and developer websites, but certainly a good amount of. Icaros Desktop Live also includes a complete SDK and many development tools and languages: in other words, everything you need to start your own AROS app which will make you rich and famous! (well, this might be a little difficult...).

Icaros Desktop Live! is tailored to give the best AROS experience, providing the best example of what this wonderful operating system can do. You don't even need to install it on your real hardware: for a quick test, you may even run it on top of Windows using the provided QEMU virtualizer, which does not need installation. It will be considerably slower, however. For this reason, we warmly suggest a native setup on a real PC or, if you don't own supported hardware, in a VMware or VirtualBox virtual machine.

1.1 What's new in this version?

Icaros Desktop 2.0 introduces a fair amount of new features:

- The whole ABIv0-on-trunk AROS backport: all system files, including kernel, libraries and device drivers, have been backported from ABIv1 to ABIv0. In simplier words, this means that the core of the operating system has changed with a more advanced one. It should be fully compatible with your current applications and make them work better.
- A new, faster and more reliable TLSF memory manager, which will reduce RAM fragmentation and progressive degradation of performances users of former releases experienced until today.
- A better consistent M68K environment for classic applications. Running Amiga programs is a mandatory task for Amigans and former Amigans, but it required original OS and KickStart™. This is not true anymore, since we can use AROS 68K both for playing games that hit the hardware and to run classic Workbench™ applications. But if you prefer, you can always integrate Amiga Forever as usual.
- Newer, exciting applications like the quick image viewer/editor ZuneView.
- The ability to mount and dismount with ease ISO, ADF disk images.
- Magellan and Scalos as workbench replacements, if you feel Wanderer is too much limited for your needs. Magellan is already configured to interact with other Icaros components, so everydays file management tasks will be quicker and easier to perform. Scalos port is still in alpha stage and not pre-configured, though, so its use as desktop replacement is discouraged.
- The most updated AROS SDK environment
- A more advanced web browser: Webkit-based OWB 1.23 lets you browse websites that didn't work anymore with former AROS version 1.16.

1.2 Two ways to use Icaros Desktop Live!

Icaros Desktop LIVE! comes in a package which includes these files

- **Icaros-pc-i386.iso**: the Icaros Desktop Live! ISO image you can burn into a physical DVD
- **IcarosDesktop_manual.pdf**: a quick and dirty user guide with installation steps
- **Emulator**: a drawer that contains the free virtual machine QEMU
- **Share:** a drawer that may be used to make host contents available to Icaros virtual machine
- **Run_Icaros_in_Windows.bat**: a launch script for Windows 2000, XP and upwards
- **aroshdrive.img**: virtual hard drive for QEMU installations.

You can either run Icaros Desktop Live! as a normal operating system for a real PC or simply “look at” it by running it into the included virtual machine. There are advantages and drawbacks in both cases.

1.2.1 Using Icaros Desktop as a real operating system

If your hardware is supported by AROS, you can consider installing it onto the hard drive, and use it as an alternative operating system along with any other eventually installed in the same hard drive. You will need some blank (unpartitioned) space on the drive, and maybe you'll have to edit a little GRUB2 configuration files to access all the other systems (Windows should be added automatically at the end of the list by AROS installer, but if you have any other OS installed, you have to edit /boot/grub/grub.cfg file accordingly). For security reasons, you might prefer to use a blank EIDE or SATA drive for Icaros Desktop, or install it on a USB pendrive, so you will be sure you won't hurt any existing and important data. Installing Icaros Desktop on the hard drive is the best way to enjoy all AROS features: amazingly fast boot times (about 12 seconds on the average nowadays PC, but it can be even faster), instant-response to user, sound support (if you have the right audio cards) and accelerated 3D for many Nvidia and Intel cards (if you have problems, though, you can switch to VESA modes). There is no real drawbacks in using Icaros Desktop on real hardware, just the time spent preparing, installing and configuring it. You can even just use the Live version without a real installation: you won't be able to save your preferences, files and boot/loading times will be *considerably* slower.

1.2.2 Using Icaros Desktop Live! in the QEMU virtual machine

Icaros Desktop Live! includes a free, open source virtual machine to let you “test” the OS even without installing it on your real hard drive. It can run inside Windows exactly as any other applications. Just execute **Run_Icaros_in_Windows.bat** file to launch QEMU and the right virtualizer (32 or 64 bit) will run *Icaros Desktop Live!* DVD without the need of burning it on a physical DVD-R. You will be **almost** in the same conditions as a user who has launched the DVD on a real computer. In fact, you will need to install Icaros Desktop on a virtual hard drive (it's provided with the virtual machine, so no problems here) and configure it to get the most of it. QEMU doesn't use your real hardware, so you will need to configure AROS using the QEMU emulated hardware.

Sound

Newer revisions of QEMU (including the one provided with Icaros Desktop Live!) include emlation of several sound cards (AC97, SB128 and HDAudio). In order to hear sound from AROS, though, you'll have to set the “SB128” audio drivers in prefs/AHI for music and audio units. AHI should be able to detect it automatically.

Networking

Networking in QEMU is possible, and network should be configured automatically.

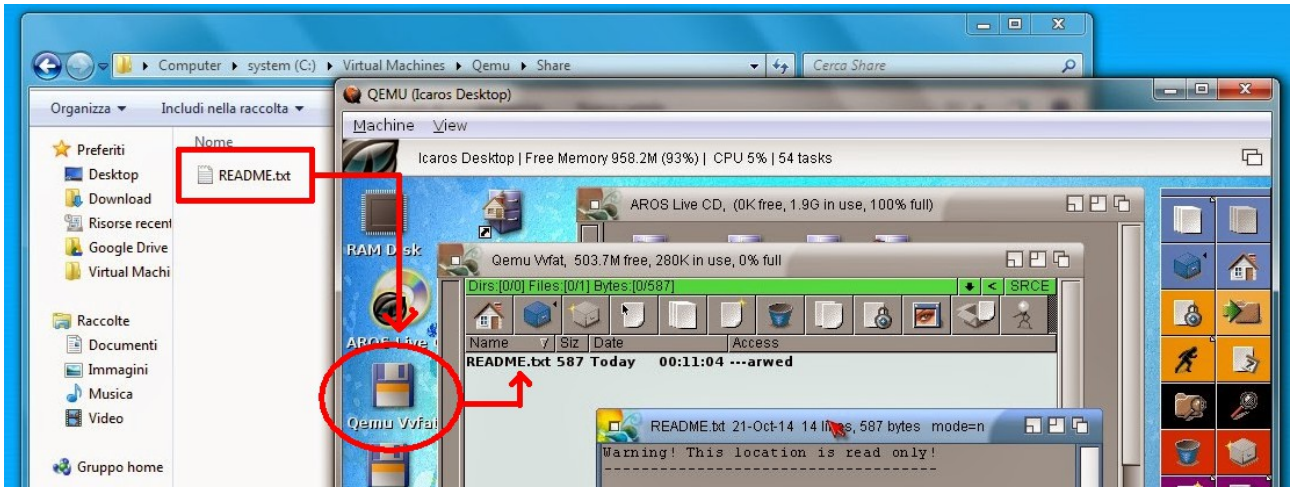
After “Installation”

Once you'll have installed Icaros Desktop on your virtual machine (follow chapter 3 like it was on a real computer), you might need to edit **Run_Icaros_in_Windows.bat** with a text editor, in order to switch the boot peripheral from the virtual DVD drive to the virtual hard drive. To get rid of the virtual DVD you may delete the highlighted part:

```
start %emulator% -vga vmware -name "Icaros Desktop" -hda "..\aroshdrive.img"
-cdrom "..\icaros-pc-i386.iso" -hdb fat:..\Share -soundhw ac97 -net
nic,vlan=0,model=pcnet -net user,vlan=0 -usb -localtime -m 1024
```

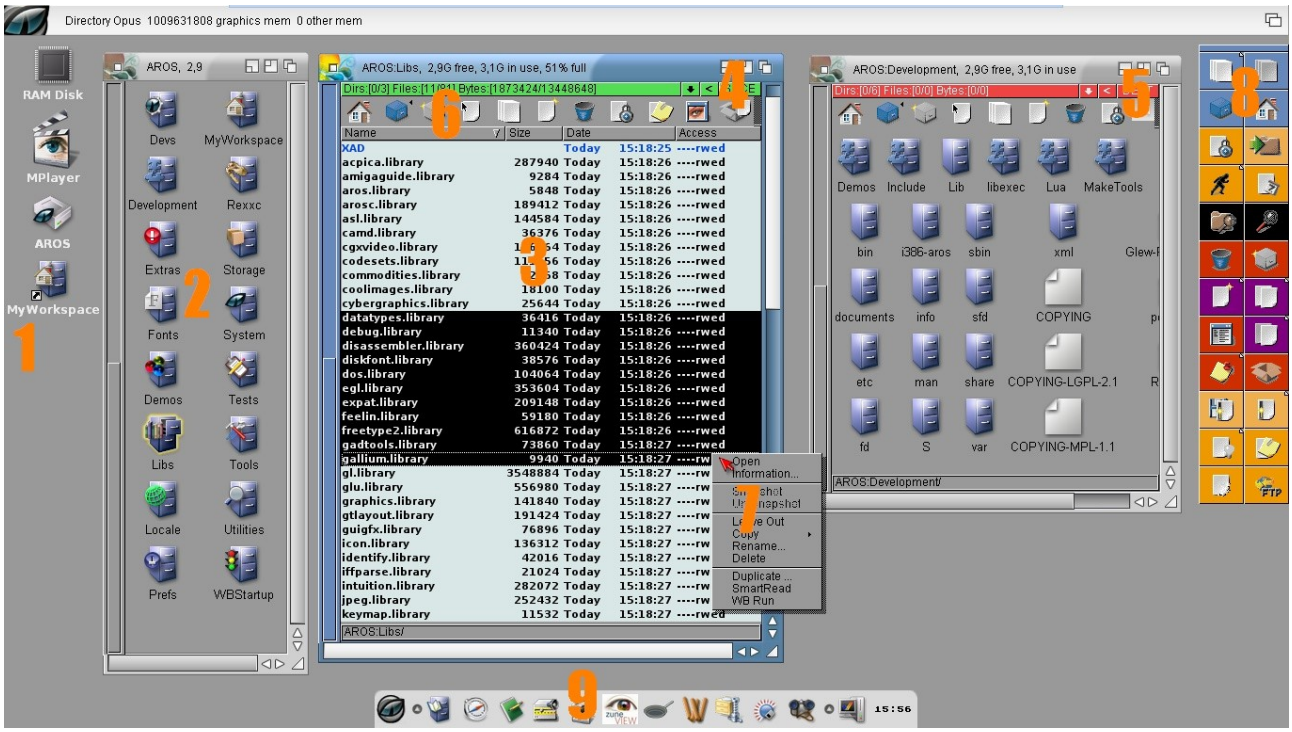
Shared folder

We've added a 'share' subdirectory in our file extraction path where you can easily place whatever file you want to share with your Icaros environment, and have it shown by Icaros Desktop among the virtual drives. This shared portion of Windows filesystem is read only: you can copy things from Windows to Icaros using it as a temporary directory (just place your files there), but not vice-versa.



1.3 Before you start using Icaros Desktop Live!

AROS is still alpha software and this means it could not work correctly on your computer. If you are totally new to AROS, you'd want to know the following:



1.3.1 Desktop and icons

1. Icons lay on desktop's top left corner. Icons can be mounted volumes, shortcuts or iconized applications already running on system. The **RAM Drive** (RAM:) is a special volume mounted directly in your volatile memory. It can be used as a fast place to unpack files or a temporary buffer for your operations. Remember that its contents will be lost when you reset or power off the machine. Icons layout and position might vary with file managers but their functions are unchanged. **Hard drives** and other volumes can have labels. You can use the RELABEL command to change them. In a shell, you can use both labels and volume identifiers.

You can't normally place custom icons on the desktop like other operating systems allows to. If you're using Magellan, however, you can turn on the “Files in desktop drawer” option, which will let you use a directory as desktop. Although this option is normally disabled by default, Icaros Desktop already provides a “Desktop” directory in **MyWorkspace** for this purpose.

1.3.2 Windows (and listers)

2. and **3.** these are **Wanderer** or **Magellan** windows, with icons inside. **Icons in AROS are meant to identify important files only**, and can be used to open the described file with a different tool, to set file properties and so on. They are mostly PNG files with the .info extension. The **Show all files** option allows to see all drawers contents. You can see contents both as icons (2) or file names (3). Layout will change according to the file manager in use.

1.3.3 Magellan specific new items

4. and **5.** When using DirectoryOpus 5 Magellan, windows are called “listers”. They can be set either as “source” (SRCE), “destination” (DEST) or neutral (OFF) for file operations. A copy operation, for instance, will copy all selected files from the source directory to the destination one.

6. Magellan allows to see listers in three different modes: icon only, icon action and name (detail view). Except icon only, other modes will introduce a lister toolbar with most common in-lister operations. Left and mouse right buttons will perform different actons.

7. Magellan also introduces context menus, something traditionally considered “alien” to the Amiga philosophy, but increasingly adopted by Amiga applications. Right clic on items like lister bar, buttons and icons to get a list of specific actions you may apply to them.

8. The right side Action Bar replicates most lister toolbar functions and adds some other. If you're getting confused by icons (Magellan does not provide bubble hints), you can toggle to a textual action bar thorugh Icaros → Action Bar (Textual) option right click menu option.

1.3.4 AmiStart

9. this nice bar is not part of AROS itself, but is a program called **AmiStart**. It will help you launching programs and previewing images. **Just remember it behaves differently from Windows start menu**. You can delete icons by dragging them out of the bar. You can add new ones by dragging them from Wanderer. To close a menu, just select an option in a parent menu. To close all, click on the Icaros Desktop button on the left side.

1.4 Icaros “Workbenches”

Icaros Desktop provides at least four different file managers: Wanderer, Magellan, Workbook and Scalos. Only the first two, however, are already configured and mature enough to sustain everydays file management tasks.

1.4.1 Wanderer

AROS' Workbench is called Wanderer. You can copy programs and files simply dragging their icons from their location to another. You can open Windows and launch program by clicking twice on their icons. Now let's talk about windows. This is a window:

Windows interface contains some gadgets which can be quite handy and, when understanding their functionality, will help you get more proficient with AROS:

1. The close gadget ( ) is on the left side of the title bar, and closes the window.
2. The iconify button ( ) on the right turns the current window into a icon on the desktop.
3. The toggle dimensions button ( ) on the right allows either to reduce the window to the minimum size, or expand it again.
4. The depth gadget ( ) on the top right corner places the window before or after the others. AROS behaves quite differently from most operating systems: clicking on a window won't give it the focus immediately. You can hide a window under the others either if you're using them or not.
5. The scroll bars ( ) show hidden parts of the window contents.
6. The dimension gadget ( ) on the right bottom corner resizes the window as you like. This is the only

active part of the boundaries which allow you to do so.

7. The parent button ( ) goes up in the directory tree, opening the parent one.

8. The path field ( ) shows the current path of the window. You can edit it to go wherever you want in the filesystem.

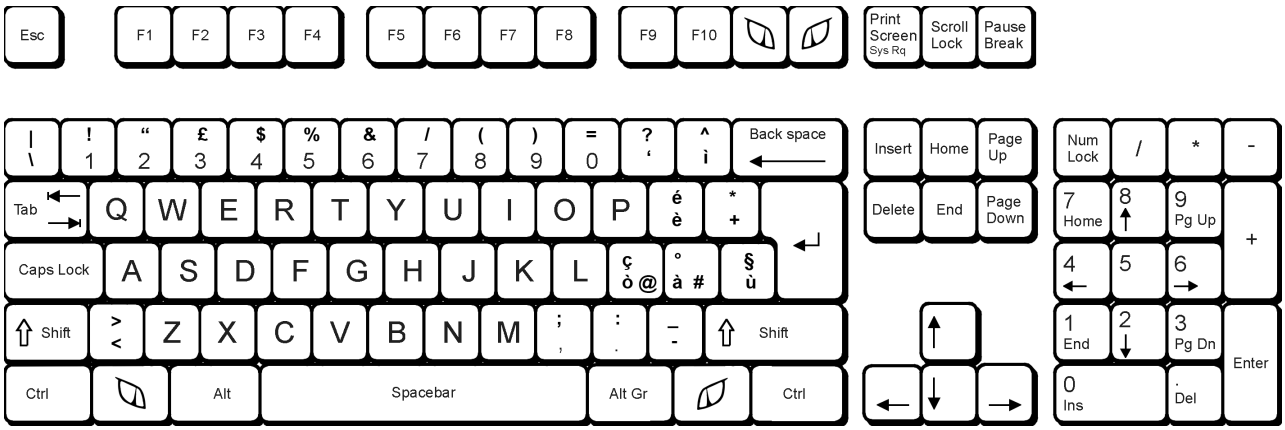
9. The title bar ( ) shows the window name. You can move windows wherever you want, handling them by their title bar, keeping the left mouse button pressed.

NOTE
In this manual we'll often talk about directories calling them *drawers* instead of *folders*. That naming is a legacy from the Amiga age that AROS has proudly inherited.

1.4.2 Magellan

BSzili's DirectoryOpus 5 port to AROS, aka “Magellan”, is the new (and default) desktop environment for Icaros Desktop. When used in “workbench replacement” mode, it allows a fine-grained management of files, which can be copied, moved, opened using Magellan's own instruments instead of the system ones (which can stil be used as fallback option). Magellan provides its own configuration tools for desktop wallpaper, sound, file recognization and associated default programs. Magellan's windows are called listers, and can be viewed in three modes: name (details), icon and icon action. In name and icon action modes, a cosy toolbar appears in every lister, while a general file managemnt toolbar (the “Action bar”) is at disposal on the right side of screen.

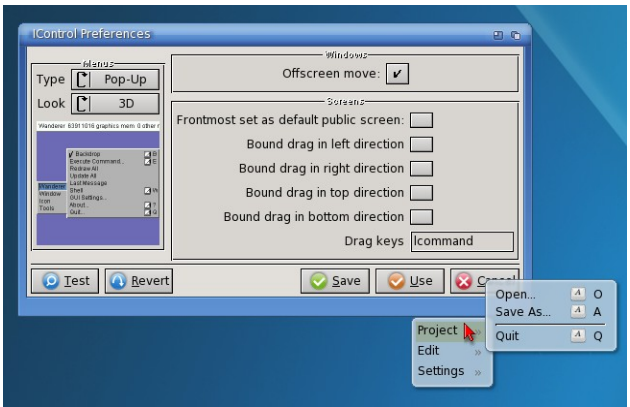
1.5 The AROS Keyboard



Please assume this convention: whenever you read about **lAros** and **rAros** keys on this manual, we mean the left and right *Aros keys* respectively. Since no keyboard manufacturer has decided yet to sell an AROS specific one, **lAros** corresponds to **left Windows** (*command* on Mac, *Amiga* on Amiga) key and **rAros** to the right one(s). Some keyboards, mainly compact, notebook and really old ones, might lack these keys. The scheme above shows the Italian layout, some character will change depending on the language you're using.

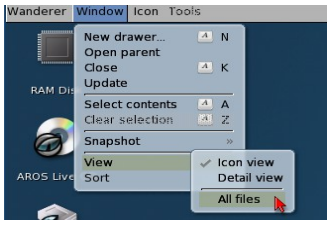
1.6 Right menu

AROS doesn't use context menus like Windows or Linux. With Wanderer you won't get the familiar context menu over an object by selecting it with the right mouse key. Like it was in AmigaOS, you will get the active program's option menu while you're pressing it. Keep the RMB (right mouse button) pressed until you have selected the option you want,



then release it. In order to have something similar to a context menu, however, Icaros Desktop sets the **Icontrol** applet in **Prefs**, selecting **Pop-Up** in the **Type** field by default. You can change this as you like, obviously, to get back to the classic Amiga habits. Magellan, on the other hand, provides a full context-menu system.

1.7 Icons and files



In AROS, as similar in AmigaOS, not all files have icons. This allows two levels of presentation and keeps the windows noticeably cleaner. On the other hand, this may lead to *misinterpretations* of the actual contents of a directory. You can view all files by selecting the **View > All files** option on the **Window** menu of **Wanderer**. Use your right mouse button to do this. You can "fix" the method for any drawer and volume using the Snapshot → Window and Snaphost → All options.

Once Forever (Wanderer only)

Wanderer allows the user to choose whether to use "show all files" or "icons only" by default. This setting, however, can be over-ridden using the show → all files/only icons options in any specific drawer. To change default view mode in Wanderer, open **Prefs/Wanderer**, go to the **Appearance** tab and click on the **Advanced** button for drawers. Then look for the **Default view mode** option of this panel. Click OK and save.

Warning!

Before Icaros Desktop 1.4, default view for volumes without a "disk.info" file in their root was "show all files" (mainly good for PC CD-ROMs and pendrives). This is not true anymore, but it can be changed using the **Default view mode** option as explained in the gray box above.

1.8 AmiStart

AmiStart is Icaros Desktop' toolbar and docking application (well, every serious operating system has one).

Menu | dock section | task list (gray = hidden, orange = active) | clock

AmiStart behaves somewhat like Windows' task bar. There is a *starting menu* placed on the left, a dock section to *quick launch* your favorite applications, a *task list* on the right and a *digital clock* on the right. The dock section is really easy to customize. To delete a icon, just grab it with the left mouse button and drag it out of the bar. If you want to add a new application, just open its drawer, grab it with the left mouse button and drop it in the dock section of the bar (to get rid of the label, right click on the icon and set the "hide string" option active). That's all.

1.8.1 Compact and Full profiles

Starting from Icaros Desktop 1.2.5, there are two different profiles available for AmiStart: FULL and COMPACT. Full allows the traditional behavior of the bar, with the program menu and the task manager. It's more complete, but it needs a very long time to load from optical devices like DVD and from slower USB pendrives. For this reason, there is now also the Compact profile, which loads faster, doesn't need caching of programs icon files, and behaves just like a dock applauncher. You can choose your profile using the **Services** program in **Prefs**.

1.9 MyWorkspace

Starting from Icaros Desktop 1.2.5, a special drawer appears on the workbench screen, MyWorkspace. Even if we don't like operating systems suggesting people where they should keep all their documents – pardon, projects! ;-) - it's now common use for any mainstream OS to provide such a place, so we did it as well. MyWorkspace is created during installation of Icaros onto the hard drive, in the same partition where the user has decided to put 'extras' and eventually the 'Development' dirs. If you've installed extras in AROS:, you'll find MyWorkspace in AROS:. If you did it in Work:, then you'll spot MyWorkspace in Work:, and so on. For your convenience, an alias of the same drawer has been put on the desktop. **Do not delete or disable *MyWorkspace*: many vital components of Icaros need it to properly work!**

Easy to access

Starting with Icaros Desktop 1.4, MyWorkspace is also set as default directory for the built-in FTP server, instead of the formerly used PUB: drawer. You can move your favourite files from any other computer of the local network straight to your MyWorkspace directory, or to any of its sub-drawers.

1.9.1 MyWorkspace in DVD-Live mode

When you're running Icaros Desktop in Live-DVD mode, without installation, you'll have MyWorkspace temporarily created in RAM:, so don't forget that you'll loose everything you save there at the next startup, if you don't copy it on a writable media, such as a USB pendrive. If you start Icaros in Live-DVD mode on a system where it's already installed, you'll find two MyWorkspace directories. That's normal.

1.9.2 MyWorkspace sub-directories and assign

MyWorkspace includes five sub-directories: Documents, Downloads, Music, Pictures and Videos. What they should contain, should be obvious. It's important to know they are accessible from the shell, and from any application file requester, with these assigns:

MyWorkspace:
Documents:
Dowloads:
Music:
Pictures:
Videos:

this way, saving your projects into the right drawer should be matter of a few mouse/keyboard clicks.

1.10 Virtual Machines

Starting from Icaros 1.2.4, the VE version of the distribution has been dismissed. This should not be an issue at all, since Icaros Desktop already supports most virtualization technologies, like Vmware and VirtualBox. When creating a new virtual machine for Icaros, please keep this in mind:

RAM: please allow 768 MB of RAM or more on most powerful configurations. You may run test environments in 512 MB, but 768 MB or 1 GB are far better for everyday's use.

Sound: Icaros 1.3.2 introduced sound support for VMware emulated Ensoniq Audio ES1371 chipset. So choose SB128 driver under VMware, but please don't use HIFI modes. On other VT like VirtualBox and Qemu, choose the AC97 adapter for your virtual sound board.

Network: choose a “Pcnet-PCI II (NAT)” virtual network adapter under VirtualBox to allow networking. Both Vmware emulated Pcnet and e1000 are working.

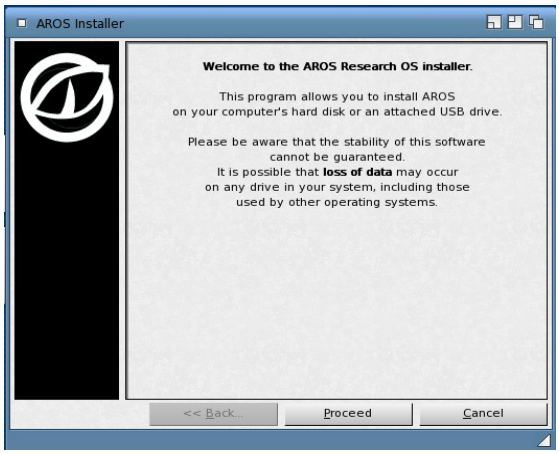
Video: even though a preliminary driver for Vmware SVGA exists, all VT should run in VESA mode only. VMware already provides support for widescreen resolutions, but maybe it will be a good idea to limit the SVGA resolution size to the one of your monitor. Otherwise, Icaros will start in a giant 2560x1600 resolution and you'll have to scroll the workbench window every time. VirtualBox doesn't provide widescreen resolutions in its BIOS by default, but it can be configured to do so using some line-command options. Please refer to VirtualBox communities and documentation for more information.

Hard drive: please consider 2 GB for the system partition only, and a minimum of other 4 GB for the work one.

Pendrives: USB peripherals work very well under VMware, but some issues were reported using VirtualBox. Setting up USB ports to work with Qemu is really tricky, but it works.

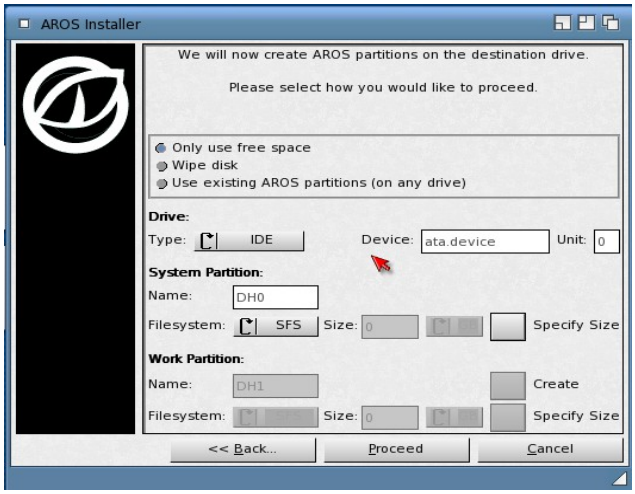
2. Installation

Installation on the hard drive is recommended in order to use AROS programs and save their files. However, AROS is still alpha code and may be dangerous for any operating system already installed on your hard drive. Keep in mind that **Icaros Desktop discourages installation on production machines with important data on them**: please, use only an old drive, possibly clean and with no other partitions.


AROS Installer
Welcome to the AROS Research OS installer.
This program allows you to install AROS
on your computer's hard disk or an attached USB drive.
Please be aware that the stability of this software
cannot be guaranteed.
It is possible that loss of data may occur
on any drive in your system, including those
used by other operating systems.
<< Back...
Proceed
Cancel

1. Open Icaros Desktop Live CD-ROM by double clicking on its workbench icon, then open your **Tools** drawer

2. Launch **InstallAROS** and carefully read what's written in the first page. Keep it in mind and don't shout at us if something goes wrong: you were warned. Click on **proceed**.



If you're installing on a USB pendrive, be sure you've cleaned it first from pre-existing partitions (please refer to your main operating system's documentation to learn how to do so) and to choose "USB" instead of "IDE" in the Type **selector.** Device **should be USB mass storage and** Unit **number might vary. Please use a SINGLE partition for Icaros installation onto a pendrive.**

3. The first time you install Icaros Desktop, please kill anything already present on your hard drive by selecting the **wipe disk** option. If you can't, or you're installing Icaros Desktop using the remaining free space of your hard drive, just select **Only use free space**.

WARNING!
Please beware of the content of "device" field: if you're destroying the wrong drive, you may regret it. If you're installing Icaros to a USB pendrive, be sure it's a USB device. See chapter 2.1 for information.

4. Check the **Specify Size** option on the right.

5. Select an amount of space for your AROS system partition. It will be formatted with SFS filesystem. This is mandatory in order to boot this version of AROS and to run all applications. Some of them have problems using other filesystems. Giving a size limit will activate the other options.

The correct size:
Bare AROS system needs less than 200 MB to install. However Icaros Desktop comes with a huge amount of software, which require a minimum of 4 GB. Please select a reasonably thin system partition (4 GB – 8 GB), and a reasonably large work one (8 GB – 120 GB). Keep in mind that **currently AROS SFS filesystem can't handle partitions bigger than 128 GB**. So, don't create a larger one. If you have a bigger hard drive, just create a large system partition too. Or add new partitions with **HDToolBox**.

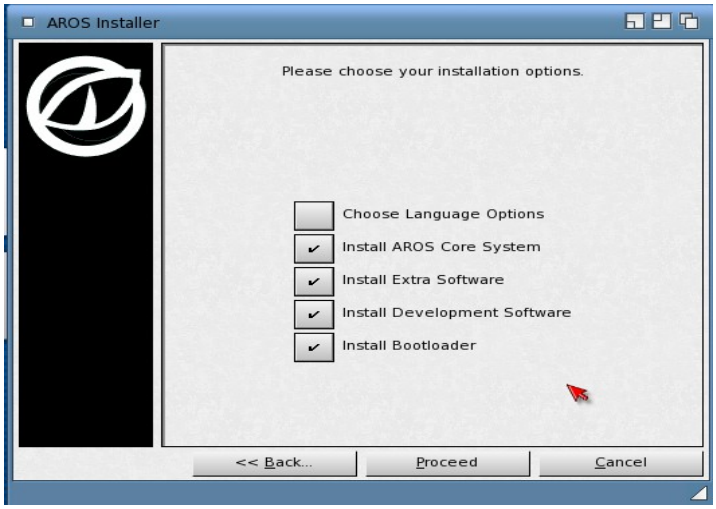
6. Unless there are good motivations not to do so (for instance, your hard drive is too small or you're installing on a USB pendrive – in this case please read the apposite section of this chapter), please create a Work Partition by checking the **Create** option in the right bottom corner.

7. Leave the **Specify Size** unchecked to let AROS use all available space for the work partition.

8. When asked, **reboot**. It will take just a bunch of seconds.

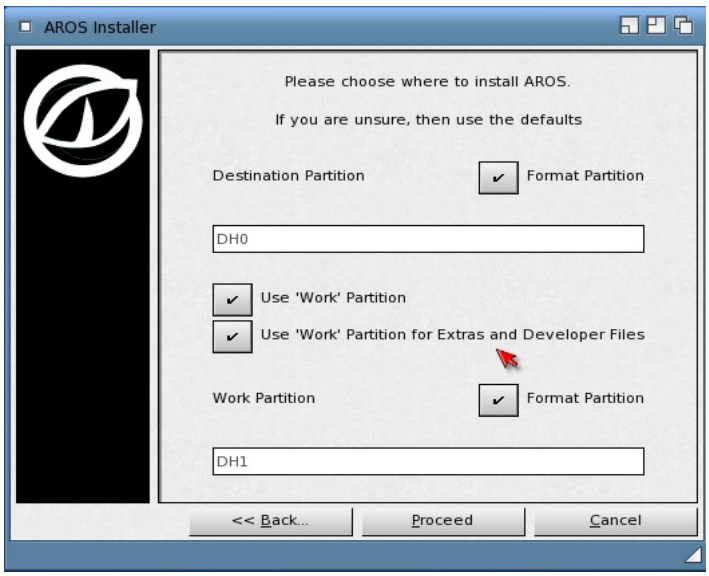
9. Repeat points 1 and 2, however, this time select **Use existing AROS partitions** and click on proceed.

10. To install a complete Icaros Desktop system, just check all the options below, except "Change language options". By unchecking **Extra** and **Development** software, you'll get a bare and barely usable AROS installation. You can also choose to have either a graphic or a text boot menu.



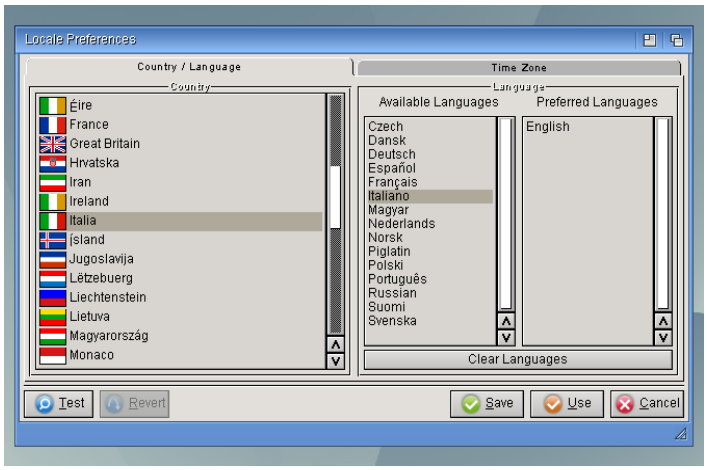
Note about Development:
Development software is really important for many AROS tasks, like compression and decompression in tar.gz format, and some applications that need executables from the Development:bin directory won't work if Development has not been installed. To prevent this, **if the user has chosen not to install Development stuff, Icaros Desktop will create a *SYS:Development/bin* directory anyway, with the needed files. Please do not delete it**.

11. If you're planning to move Extras and Development files outside of the system partition, please specify this in the following step. Special "MyWorkspace" directory will be created as well, in the same volume Extras and Development files will be put. Do not delete "MyWorkspace", because many components of Icaros Desktop need it to properly work.



12. If you selected to choose language options at step 10, please select your keyboard layout in the left side of this window. This can be done later, by launching the **Input** panel in **Prefs**.

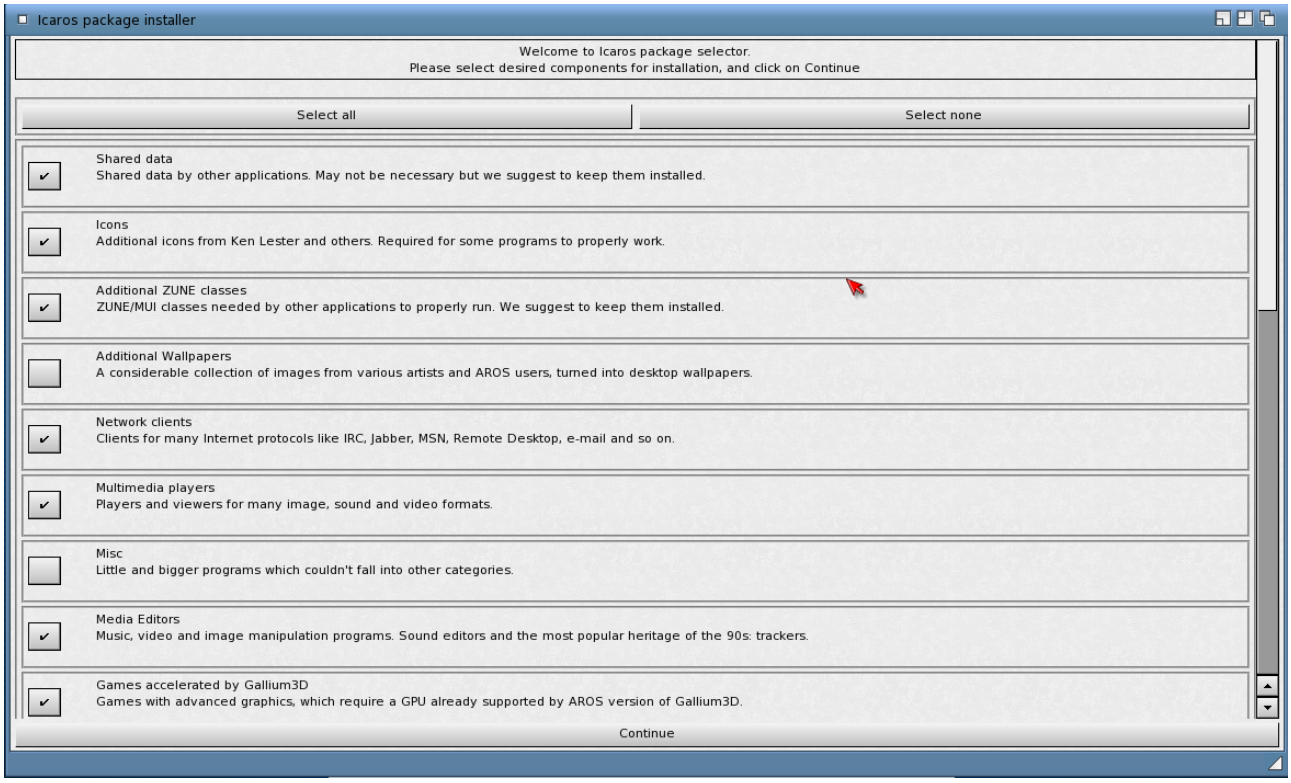
13. If you selected to choose language options at step 10, please select your default language. The first one appearing in the right side will be used by **Wanderer** and other applications. The second one will be used only if catalogs for the default language aren't available. Language will fall back to English if no other language is available.This can also be selected later, opening the **Locale** panel of the **Prefs** drawer.



14. Files will be copied. Please wait until the installation program has completed its task. It should take a few minutes to 1 hour, depending on your hardware.

15. After installation, you will be prompted to perform either a Full or a Custom installation. The full installation will install all the components provided with your version of Icaros. The Custom one will allow you to choose between groups of programs. If you choose the Full installation, jump to step 17.

16. If you went for the Custom installation, please choose what to install with our package selector. Each group of software will be shown with a brief description. Please notice that Icaros will give you as much freedom as it can about groups selection, however some packages may be needed by other programs to correctly run. When suggested to install a particular package, please install it.


Icaros package installer
Welcome to Icaros package selector.
Please select desired components for installation, and click on Continue
Select all
Select none
Shared data
Shared data by other applications. May not be necessary but we suggest to keep them installed.
Icons
Additional icons from Ken Lester and others. Required for some programs to properly work.
Additional ZUNE classes
ZUNE/MUI classes needed by other applications to properly run. We suggest to keep them installed.
Additional Wallpapers
A considerable collection of images from various artists and AROS users, turned into desktop wallpapers.
Network clients
Clients for many Internet protocols like IRC, Jabber, MSN, Remote Desktop, e-mail and so on.
Multimedia players
Players and viewers for many image, sound and video formats.
Misc
Little and bigger programs which couldn't fall into other categories.
Media Editors
Music, video and image manipulation programs. Sound editors and the most popular heritage of the 90s: trackers.
Games accelerated by Gallium3D
Games with advanced graphics, which require a GPU already supported by AROS version of Gallium3D.
Continue

When you're done with selection, press Continue to extract all files.

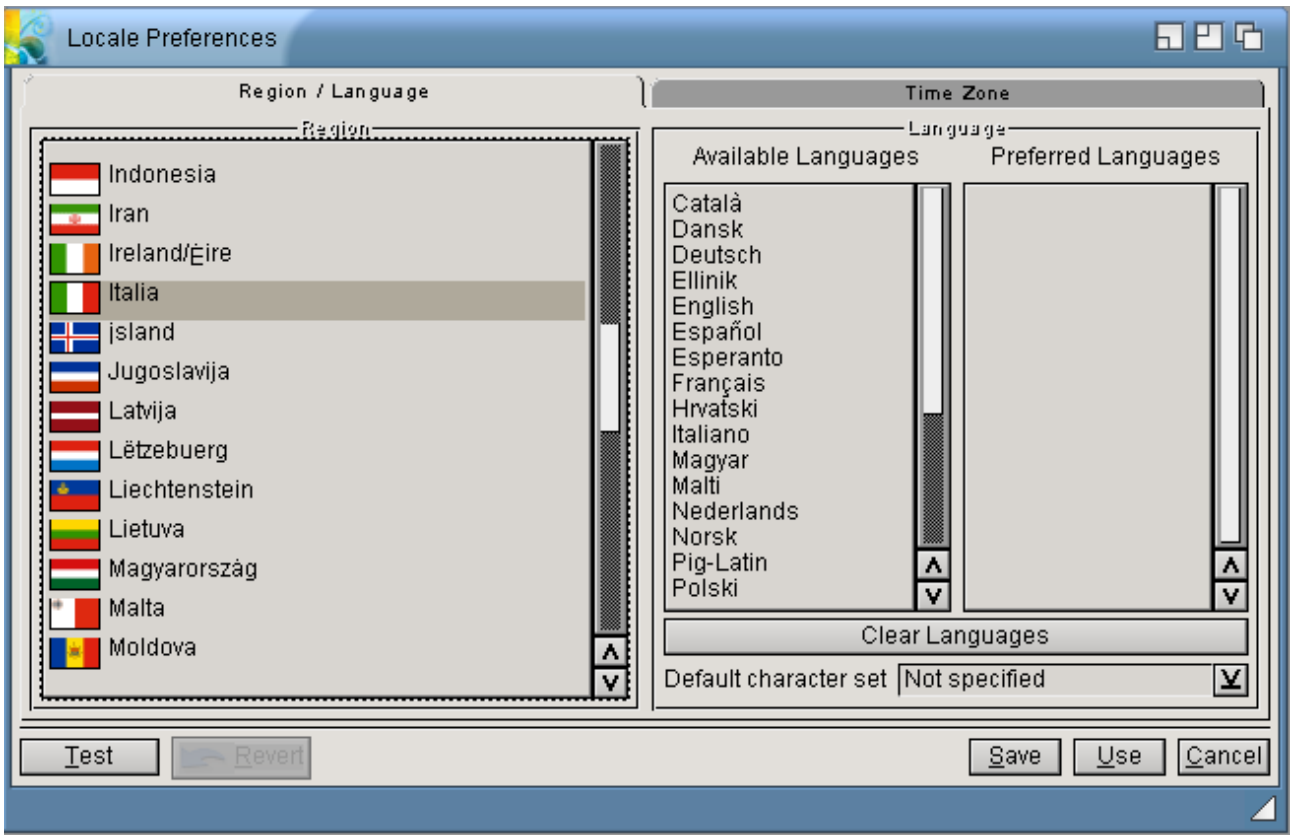
17. Files will be extracted. Please wait until the installation program has completed its task. It may take from few minutes to 2 hours, depending on your hardware. When finished, just remove Icaros Desktop cd-rom and reset your PC, to boot AROS from the hard drive.

2.1 First boot configuration steps

When booting for the first time from the hard drive (or a writable USB unit) Icaros Desktop will let you configure most impotant system and environment settings. You may decide to proceed, to be reminded later (at next reboot) or to completely skip this procedure. In the latest case, you will need to manually open the control panels in the /Prefs drawer.

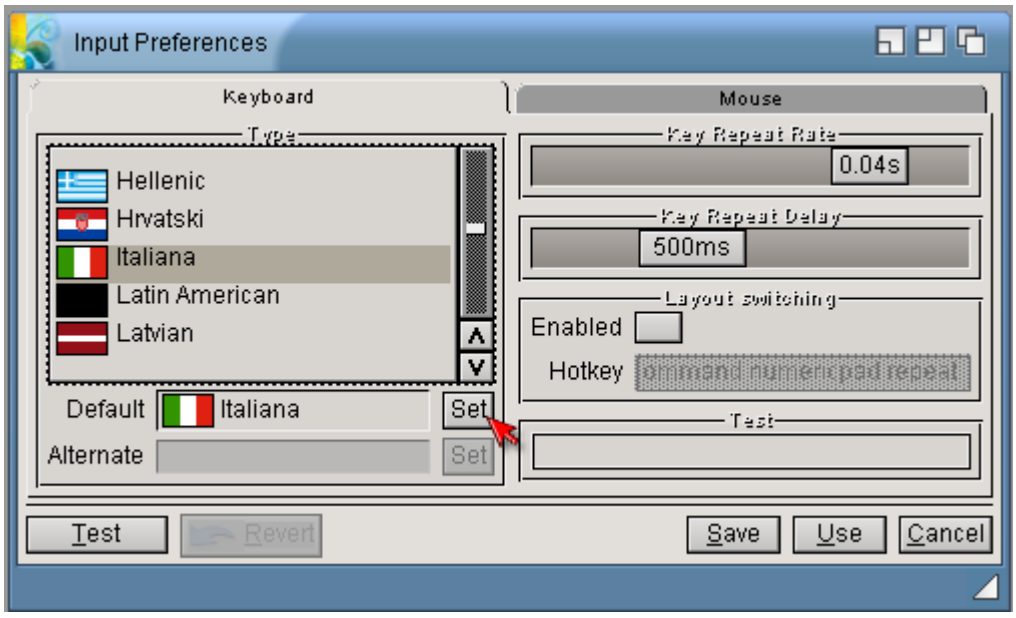
2.1.1 Locale settings

Icaros Desktop will let the user translate system interface to its native language, if available. Please notice that not all locales are up to date, and some languages may lack of proper translations, making the interface a funny mixture of english and foreign terms. Moreover, Icaros specific programs and scripts may not support locale at all, so they will always be in english. If you can speak english, we warmly suggest to choose your nationality on the left but keep the english language on the right.



2.1.2 Input settings

The second panel lets the user choose his/her favourite keyboard layout.



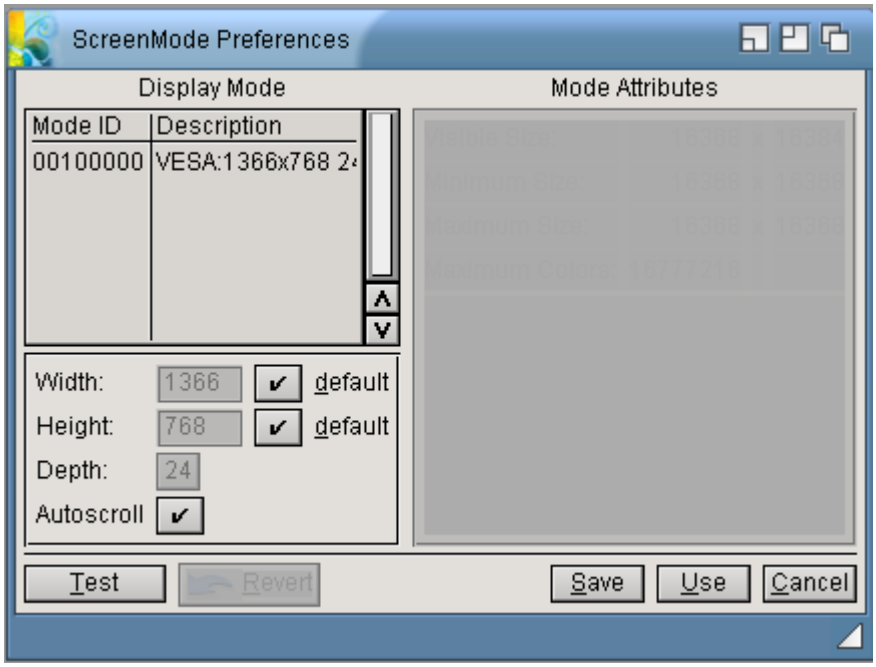
please notice the Set buttons on the left bottom corner:

you will need to use it to confirm your national keyboard layout. If you don't, you will end up using the default US layout. AROS supports also a secondary layout, but you have to enable “Layout Switching” first. Then, you will be able to choose the Alternate field (normally grayed out) and to select a hotkey for

keyboard switching.

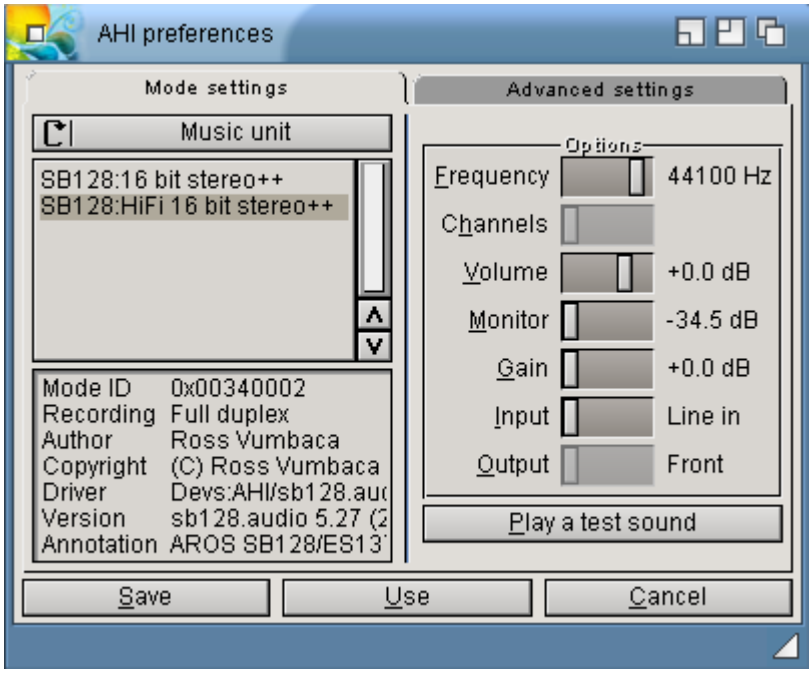
2.1.3 Screen Mode settings

The third panel will be ScreenMode. This will set the default screen resolution for your screen. If you're using VESA mode, you won't be able to choose any different resolution from the one chosen at boot. But if you're using a native driver for a supported video card, you will have much more choices here.



You can also set a wider area then your screen can show by unmarking the “default” checkboxes. In this case, you will need to scroll the area to see what's hidden outside your monitor's boundaries.

2.1.4 AHI (Sound) settings

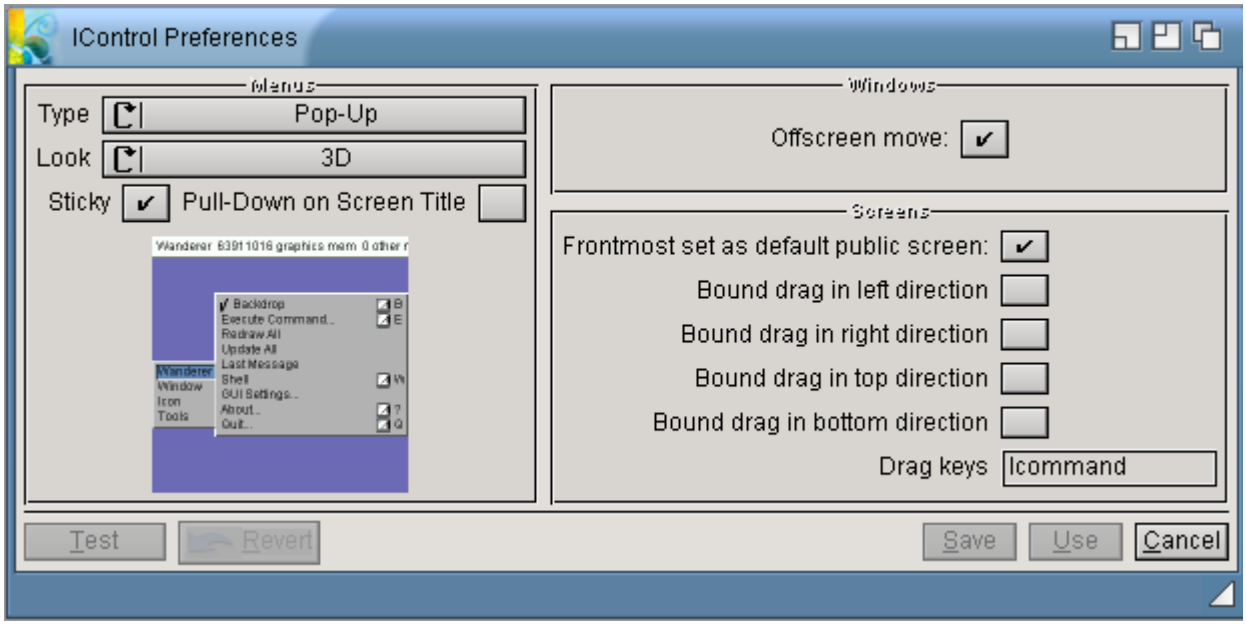


AHI preference panel will allow you to configure your audio hardware. Unluckily, only specific integrated

codecs and discrete audio cards are supported, so AROS will try to find a suitable adapter here. If it won't, you'll end up with the VOID driver which basically 'fouls' applications letting 'em think there is an audio device on the system, otherwise they wouldn't work. Play a test sound to be sure your hardware is actually working.

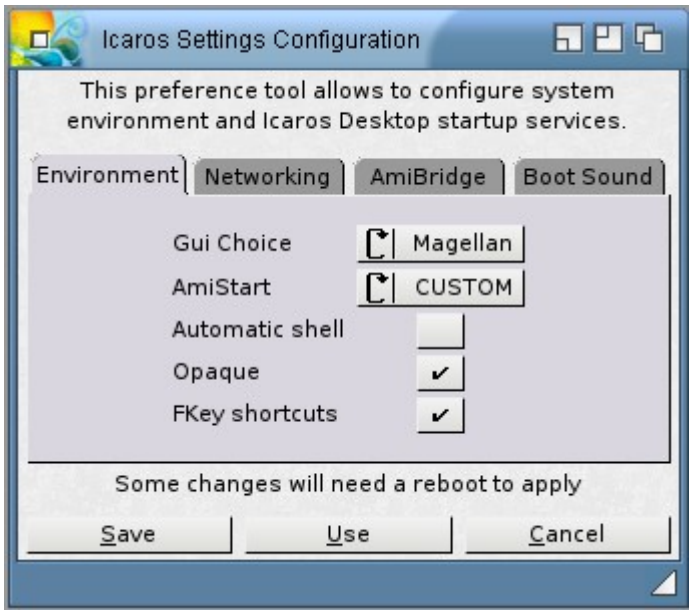
2.1.5 IControl settings

This control panel allows to customize menus, windows and screens behavior. Icaros Desktop is already configured to use 3D-like menus (this actually depends on themes, though) in a pop-up fashion, so the right click menu will appear near the pointer instead of in the original Amiga top-screen bar. But you can restore the old habits if you like. Normally, Icaros windows can be moved out of the boundaries of your screen, but you can decide to stop this to happen, like the original Amiga workbench did.



2.1.6 Icaros environment settings

A complete description of this tool will follow in the next chapters. For now we will just describe the main options here.



In the Environment panel we may choose the default file manager (GUI), between AROS classic Wanderer

and BSzili's port of DirectoryOpus 5 Magellan. The former is an almost complete reproduction of AmigaOS' Workbench, so users loyal to Amiga habits might find this a better fit for them. Magellan, however, offers a much wider set of instruments for file management, making life a lot easier. Icaros Desktop already configured it to mimic Wanderer as much as it can, but also providing more and more functionalities. The AmiStart option allows to select AmiStart's behavior. See chapter 1.8 and 1.8.1 for a better explanation. The Automatic Shell checkbox enables a command line parser at startup: good if you are a coder and/or a shell-centric user. The Opaque option allows to make AROS move contents of windows along with their boundaries when you decide to place them elsewhere, while the FKey shortcuts option let user disable Icaros' keyboard shortcuts that don't belong either to Wanderer or Magellan themselves.

The Networking panel allows to enable or disable two network daemons that may greatly improve Icaros' interaction with other machines over the local network. The FTP file share option allow to run a FTP server on the local machine, allowing users to read and write contents of MyWorkspace drawer from a remote computer. The VNC remote workbench option, instead, allows to manage the current session from another computer (or tablet, or smartphone) using a VNC client.

The Boot Sound panel, in the end, allows to choose a mp3 file you may play at boot time, when the system is ready. We're skipping AmiBridge panel for now.

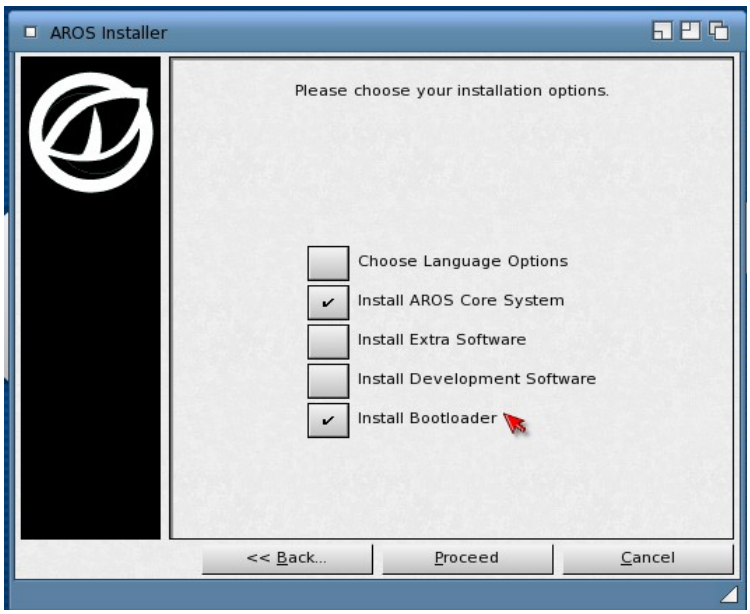
2.2 Create a “installation Pen-drive”

Starting with version 1.5, Icaros Desktop installations on pendrives can't be directly used to install Icaros again onto a hard drive, using the pendrive themselves as boot devices. This is a side effect of new installation procedure, which expects Extras and Development stuff to be archived. So, what to do if you need to install Icaros on a hard drive, starting with a pendrive? The solution is building a pendrive which looks like a CD-ROM. We provided a script to do that in a semi-automated way, here's what to do step by step to use it correctly:

1. Follow chapter 3.1 to create a suitable pendrive, but in this case it's better to avoid creating FAT partitions. Just use the whole space of a 2 GB USB pendrive, wiping all existing partitions and creating the AROS SFS volume only.

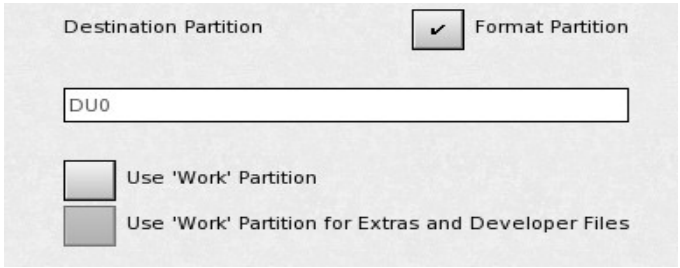
2. Boot from your Icaros Desktop Live or Light optical media (or use the ISO image if you're doing this in a virtual environment like VMware or VirtualBox)

3. Run InstallAROS and follow normal USB installation. However, at this panel:



select **Install AROS core system** and **Install Bootloader** ONLY. They are the only needed components at this time, while installing also extras and development stuff would just waste a lot of time. They would be ripped off, anyway, later.

4. Select to **use only a single partition** and format it



5. Be sure to install GRUB on the pendrive and not on the hard drive

6. When finished, click Proceed. **Do not reboot and do not remove the pendrive from the system.**

7. Open your Icaros' CD or DVD root and scroll down the contents until you see this icon:

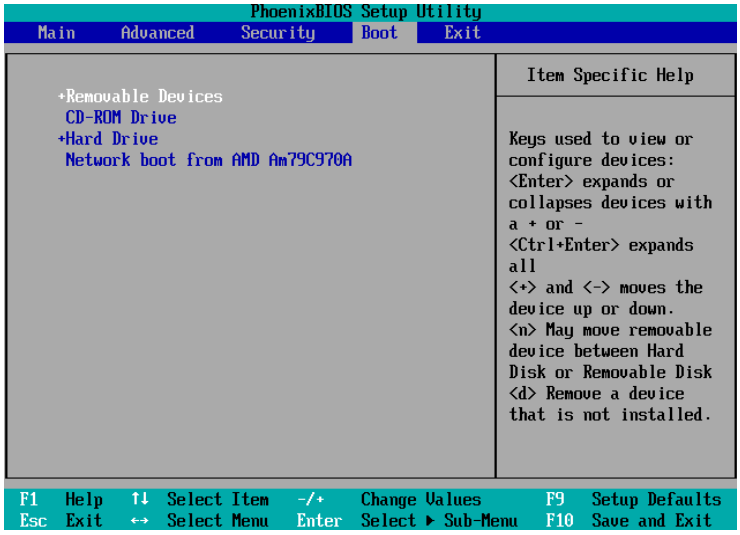
8. Click twice to run the “Create Installation Pendrive” script.

9. Wait for it to finish:

10. When finished, you will have a USB pendrive which will act like an Icaros DVD/CD, with packaged Extras and Development stuff. You won't be able to use these contents directly as usual, but you will still be able to customize your installation pendrive changing system settings with the ones you prefer (for instance, to choose your favourite languages, fonts, background and so on...).

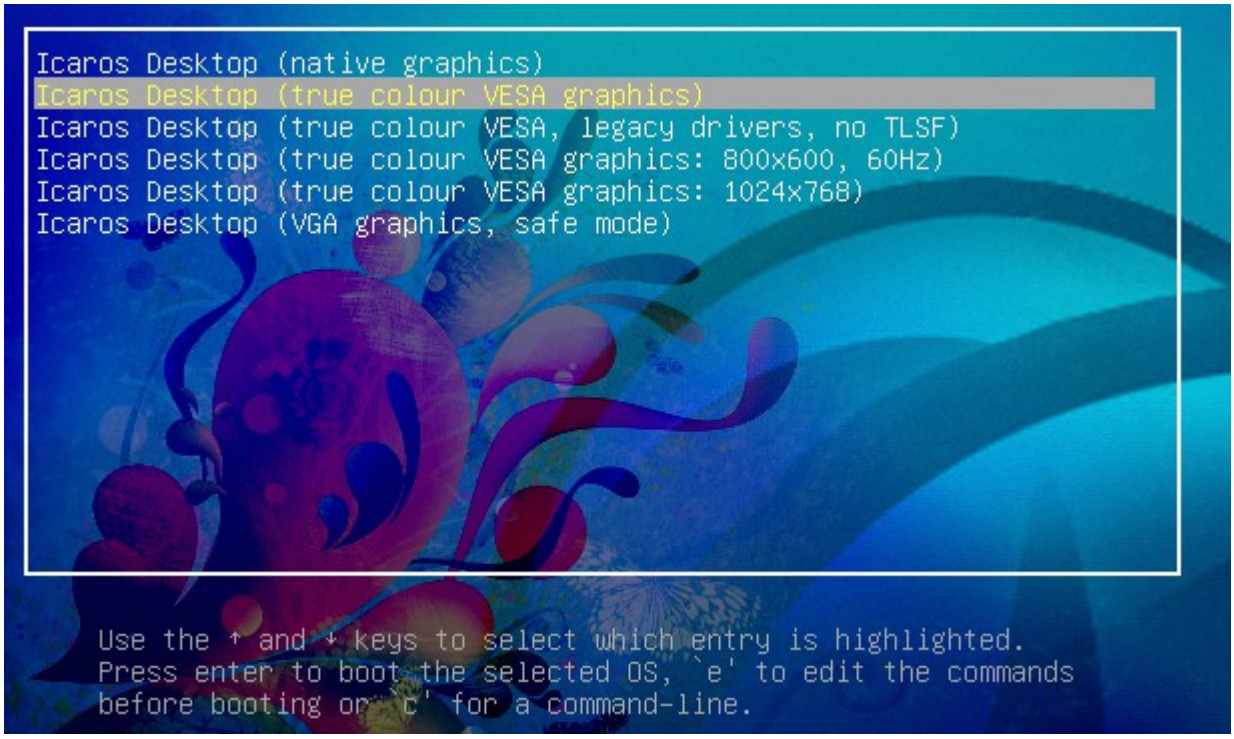
Warning:
Do not apply the “Create Installation Pendrive” script to a pendrive you're already using as 'production' system: contents in Extras, Prefs and Development drawers will be erased and overwritten with default ones, so you'll loose them permanently! This procedure is meant to create installation pendrives only!

11. Now you can remove the installation media (CD or DVD), turn off your computer, remove the USB pendrive and use it to install Icaros Desktop on the same computer, or on other ones. Remember you'll need to set the USB peripheral as boot drive, to allow booting the system into Icaros Desktop.


PhoenixBIOS Setup Utility
Main
Advanced
Security
Boot
Exit
+Removable Devices
CD-ROM Drive
+Hard Drive
Network boot from AMD Am79C970A
Item Specific Help
Keys used to view or configure devices:
<Enter> expands or collapses devices with a + or -
<Ctrl+Enter> expands all
<+> and <-> moves the device up or down.
<n> May move removable device between Hard Disk or Removable Disk
<d> Remove a device that is not installed.
F1 Help ↑↓ Select Item -/+ Change Values F9 Setup Defaults
Esc Exit ↔ Select Menu Enter Select ▸ Sub-Menu F10 Save and Exit

3. Optimizing boot

Starting from Icaros Desktop 1.2.6, the initial boot menu has changed a lot, with a few but self-explained options.


Icaros Desktop (native graphics)
Icaros Desktop (true colour VESA graphics)
Icaros Desktop (true colour VESA, legacy drivers, no TLSF)
Icaros Desktop (true colour VESA graphics: 800x600, 60Hz)
Icaros Desktop (true colour VESA graphics: 1024x768)
Icaros Desktop (VGA graphics, safe mode)
Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, `e' to edit the commands
before booting or `c' for a command-line.

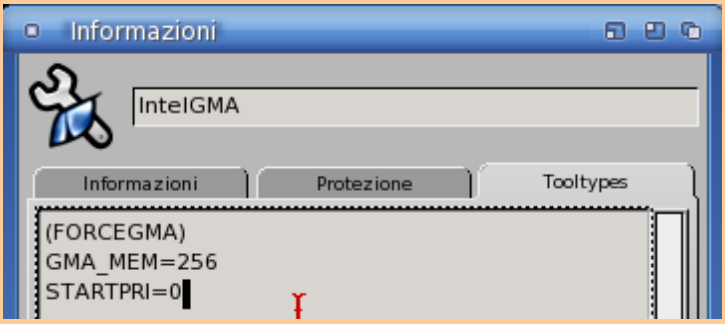
Here is a more detailed explanation of our boot options:

3.0.1 Icaros Desktop (native graphics)

Starting with Icaros Desktop 1.2.6, the distribution provides the classic AROS/AmigaOS way of handling graphic drivers. A new “Monitors” drawer has been placed in DEVS:, so you can choose what driver to start.

If 3D applications crash with GMA DRIVER

GMA driver allocates 64 MB of video RAM by default, but users may change this size. Some 3D applications like Cube2 might crash if not fed with enough video memory. To change this value enter the devs/Monitors drawer, select the GMA monitor icon and right click to access menu, then choose icon → Information (or press rAros+I). Go to the ToolTypes section and uncomment the GMA_MEM=<MB> line, then enter the desired value in MB. 256 MB should be enough for any current AROS 3D game or application.



3.0.2 VESA modes

If no native drivers are applicable, Icaros Desktop will fall back to a VESA mode matching (or at least near to) your screen resolution. But don't worry, AROS VESA modes are fast. Don't be fooled by other operating systems' bulk VESA support: under AROS VESA modes, you'll get about the same experience you'll have with native drivers, with some minor differences, the biggest one being the inability to open secondary screens of different resolution than the one you must choose at startup. And, currently, you can't change this resolution once the system has loaded. VESA modes have slightly improved over time. You may choose any resolution supported by your system BIOS. For this reason, AROS will check what is the best VESA resolution supported by your monitor and your BIOS, and then will choose it to boot AROS. This mechanism, however, might not work for every card/motherboard produce weird results (for instance, opening a 2560x1600 screen on some VMware versions...), we kept teo “legacy resolutions” like 800x600 and 1024x768 with 32 bit (true colour) palette (millions of colours), you can edit at boot-time (and after) as explained in the following chapters.

NOTE: this driver also provides the screen-dragging feature.

3.0.3 Detecting supported VESA resolutions

To list supported VESA resolutions of your system, just press **C** at the boot menu and enter the **vbeinfo** command. Maybe you'll get a long list and you won't be able to read it. Anyway, you should read at least some lines like:

```
0x168:  1280 x  800 x  8  Packed
0x169:  1280 x  800 x 16  Direct, mask: 5/6/5/0  pos: 11/5/0/0
0x16a:  1280 x  800 x 32  Direct, mask: 8/8/8/8  pos: 16/8/0/24
```

just look at the resolution size parts, like “1280 x 800 x 32”. These are actually the screen sizes you can use, providing that your monitor supports them. To return to the main menu list, press **ESC**.

3.0.4 Use of a fixed, different VESA resolution

Now that you have understood what VESA resolutions are supported (see chapter 4.0.2), you can boot AROS in a resolution other than 1024x768 and 1280x1024. This can be extremely useful in VMware. For instance, to boot AROS in a 1280x800 screen, just highlight any VESA boot option...

```
Icaros Desktop (ATI graphics)
Icaros Desktop (VESA best fit, true colour, floppy disabled)
Icaros Desktop (VESA best fit, high colour, floppy disabled)
```

...and press **E**. You will enter edit mode for this grub line.

```
serial --speed=9600
multiboot /boot/aros-pc-i386.gz vesa=32bit_ATA=32bit floppy=disabled\
```

Move the cursor using the right arrow key in the position above, immediately after “vesa=32bit”, and delete “32bit” using the backspace button 5 times. Now enter only the screen size, without any reference to the palette. You can't choose colour depth, so, for now, just enter **1280x800**, this way:

```
serial --speed=9600
multiboot /boot/aros-pc-i386.gz vesa=1280x800_ATA=32bit floppy=disab\
led
```

and **don't press Enter**, just **press Ctrl+X** instead, and AROS will start booting to the desired resolution. Here is a list of some interesting values you can give to the vesa setting:

16bit	**Use the highest VESA resolution with 65536 colours (high colour)**
32bit	**Use the highest VESA resolution with 16 millions colours (true colour)**

1024x768x32	**Use the legacy 1024x768x32 mode (1)**
1024x768x16	**Use the legacy 1024x768x16 mode (1)**
NNNNxMMMM	**Use the NNNN pixels large and MMMM pixels high resolution (2) at the best palette available**
Notes:	**(1)** can be also **640x480**, **800x600** and **1280x1024**. Palette depth can be explicitly chosen only for these ones. **(2)** must be supported by your BIOS VGA extensions. Please refer to chapter 4.0.4 to get a list of supported one.

Out of range?
You can also choose screen refresh rate. This will be usfeul to stop your monitor getting out of sync when booting AROS in VESA modes. You just have to add @75 to your favourite resolution. For instance, to force the driver running at 75Hz, you may edit the line this way:

VESA=1024x768x32**@75**

for compatibility reasons, Icaros defaults to a 60Hz refresh rate, which should be good for most nowadays LCD panels. But users running Icaros on a old CRT display will prefer a higher refresh rate, in order to keep their eyes relaxed.

3.0.5 Icaros Desktop (True colour VESA, legacy drivers, no TLSF)

This safer mode allow booting AROS with enhanced compatibility settings. This option might be slower, and slowdown AROS' access to files, but at least it will run.

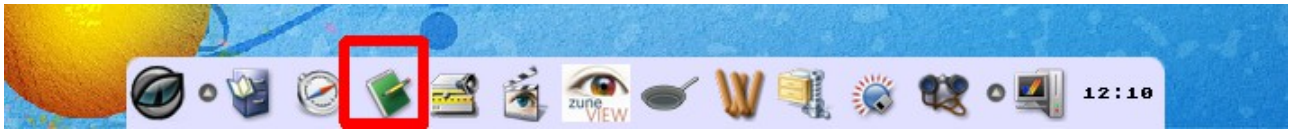
If Icaros doesn't boot correctly
Please try loading it **disabling DMA**. Highlight the Grub option you prefer and press **E**, move the cursor over *ATA=32bit* and replace it either with *ATA=nodma* or *ATA=nodma,32bit* or *ATA=nopci*. Press **Ctrl+X** to continue booting. If one among the three works for you, follow the next chapter to learn how to modify Grub's menu file, and make these settings permanent.

Note: disabling DMA will reduce considerably AROS speed when accessing drives (like from 5 MB/sec to about 750 KB/sec). Since Icaros updates don't modify the Grub.cfg file to keep your changes, please try booting with ATA=32bit when a new release of Icaros Desktop is installed. AROS' ata.device is one of the key components which is under heavier reworks by the development team.

3.1 Modifying the initial menu (you need to install Icaros Desktop)

Before starting
The *grub.cfg* file in */Arch/pc/grub* may be write-protected. So you'll have to *un-protect* it first, or you won't be able to save your modifications. Unluckily, the editor won't advice you loudly about this. To un-protect the file, just open a new shell (**rAros+W**) and type in these commands:
```
sys:arch/pc/grub
protect grub.cfg RWED ADD
```

Scrolling that long list of resolutions every time is boring, right? Well, there's a speedy way to get rid of it. Just open the editor by clicking here:



and load the grub.cfg file located in the /arch/pc/grub directory. You'll find something like this:

```
# Timeout for menu
set timeout=5
```

```
# Set default boot entry as VESA Gfx
set default=1
```

followed by groups of lines like these:

```
menuentry "Icaros Desktop (native graphics)" {
    multiboot /Arch/pc/bootstrap.gz ATA=32bit floppy=disabled
    module /Arch/pc/kernel.gz
    module /Arch/pc/Devs/battclock.resource
    module /Arch/pc/Devs/processor.resource
    module /Arch/pc/Devs/timer.device
    module /Arch/pc/Libs/expansion.library
    module /Classes/USB/bootkeyboard.class
    module /Classes/USB/bootmouse.class
    module /Classes/USB/hub.class
    module /Classes/USB/hid.class
    module /Classes/USB/massstorage.class
    module /Devs/Drivers/hiddclass.hidd
    module /Devs/Drivers/graphics.hidd
    module /Devs/Drivers/keyboard.hidd
    module /Devs/Drivers/mouse.hidd
    module /Devs/Drivers/ata_pci.hidd
    module /Devs/Drivers/i8042.hidd
    module /Devs/Drivers/vesagfx.hidd
    module /Devs/Drivers/vgah.hidd
    module /Devs/Drivers/pci.hidd
    module /Devs/Drivers/pcipc.hidd
    module /Devs/Drivers/serial.hidd
    module /Devs/Drivers/parallel.hidd
    module /Devs/USBHardware/pciusb.device
    module /Devs/usbromstartup.resource
    module /Devs/bootloader.resource
    module /Devs/dosboot.resource
    module /Devs/FileSystem.resource
    module /Devs/lddemon.resource
    module /Devs/efi.resource
    module /Devs/hpet.resource
    module /Devs/console.device
    module /Devs/input.device
    module /Devs/gameport.device
    module /Devs/keyboard.device
    module /Devs/ahci.device
    module /Devs/ata.device
    module /L/afs-handler
    module /L/cdrom-handler
    module /L/sfs-handler
    module /L/ram-handler
    module /L/con-handler
    module /Libs/acpica.library
    module /Libs/partition.library
    module /Libs/poseidon.library
    module /Libs/aros.library
    module /Libs/debug.library
    module /Libs/dos.library
    module /Libs/graphics.library
    module /Libs/intuition.library
    module /Libs/keymap.library
    module /Libs/layers.library
    module /Libs/oop.library
    module /Libs/utility.library
}
```

well, every one of these walls of text (included in { and } brackets) will manage an entry of the early startup menu. As you may notice if you already know how AROS booted in the past, with Icaros Desktop

2.0 kernel has become fully modular, meaning that you can exclude from booting any problematic component. Icaros already 'cut out' NTFS and FAT32 handlers since they were known for bringing issues. This doesn't mean, though, that NTFS and FAT partitions can't be used once system has loaded: AROS can still access them if their handlers are included in the L drawer.

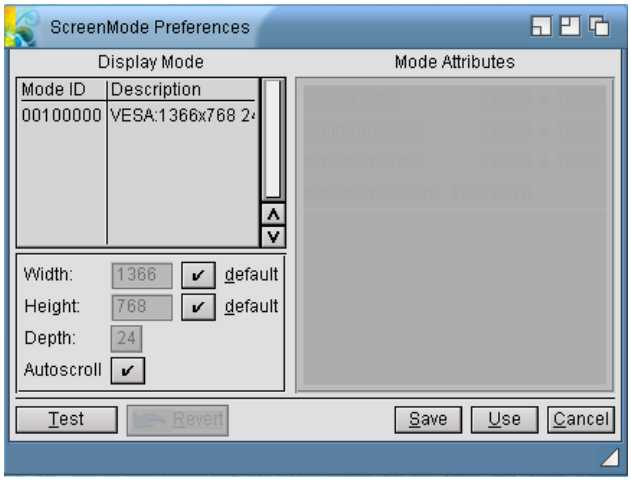
If you need to make the initial menu more compact, please delete all the lines you don't need, and you're almost done. Just notice the first four lines, that you must keep: the timeout value indicates the number of seconds to show the startup menu, while the default one select the option which will be chosen automatically. Please notice that the count begins with 0, not with 1, so to choose the second entry, you have to insert 1 here and not 2. And so on.

3.2 Customizing AROS

Almost all AROS settings can be accessed and changed from the Prefs drawer in AROS:. Most of options are self-explanatory, so we won't talk about them. Some other allow deep system customization, and would need too space for a quick guide like this. Icaros Desktop comes with João Ralha's AROS manuals: please read them for any further information. We will cover here only the common operations.

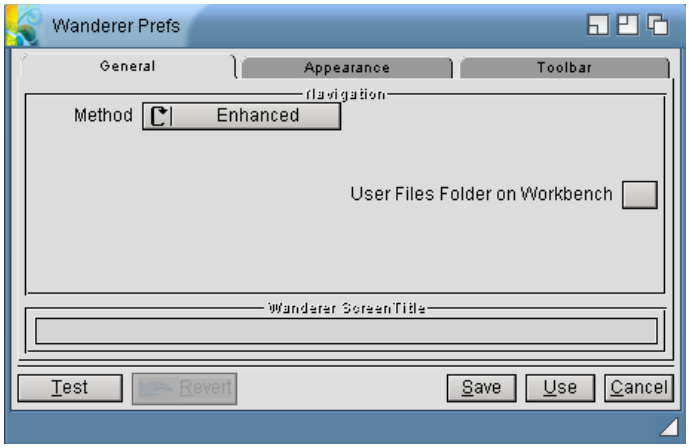
3.2.1 Changing screen resolution

Screen resolution and colour depth can be accessed only when using ATI or Nvidia accelerated drivers (by selecting one of them during boot). Just launch **ScreenMode** to change them.

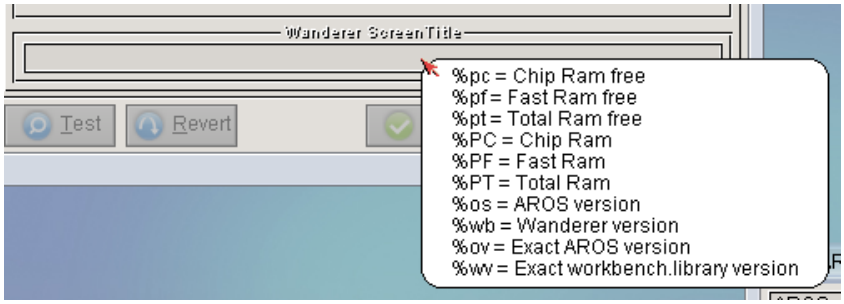


3.2.2 Changing desktop appearance

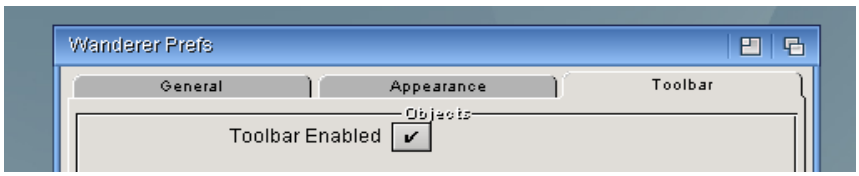
You can change desktop and windows wallpaper, icon spacing and behaviour, label length, font and effects by launching the Wanderer applet.



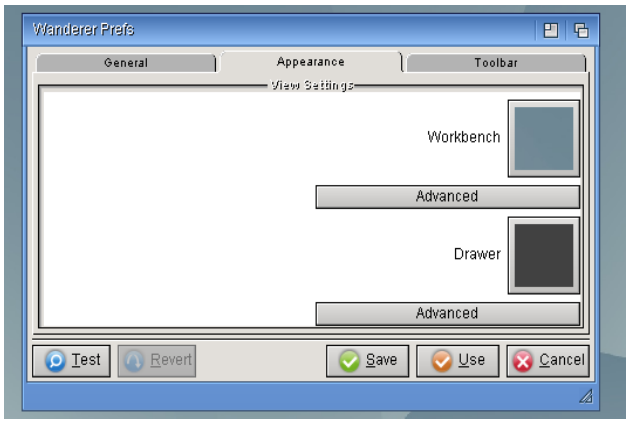
The General tab allow switching between the *Enhanced* (default) Wanderer behaviour and the *Classic* one. The former opens new drawers in the same window, the latter in a new one, exactly as AmigaOS 3.x. Please notice the **Wanderer Screen Title** option in the bottom of the page: it changes the default message on the top title bar of the screen (normally *Wanderer %pc graphics mem %pf other mem*).



Now the **Toolbar tab**:

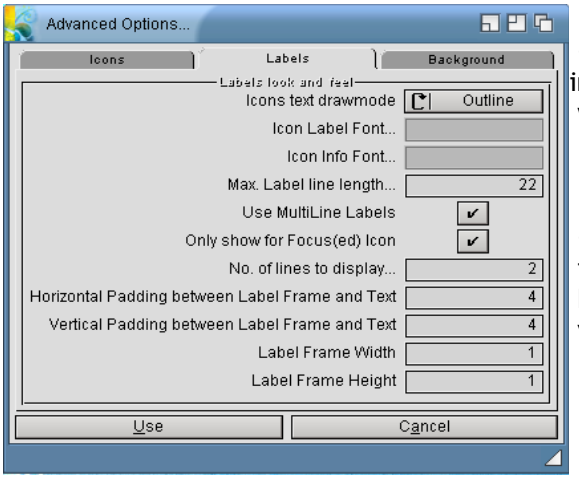


The **Toolbar Enabled** selector decides whether showing the path bar in every window or not. Eliminating it, you get more "old Amiga feeling". You will prefer enabling it again.



The **Appearance** tab is maybe the most interesting one. Click on the Workbench and Drawer buttons (the right cyan and orange squares in the upper shot) to change wallpaper. You can select either any datatype-supported image or a colour effect. You'll find some nice wallpapers starting from the SYS:Prefs/Presets/Patterns directory.

Now, let's click on Advanced. A more complex options window will appear:



< The Draw Mode option will select how the background image
will fit in the screen

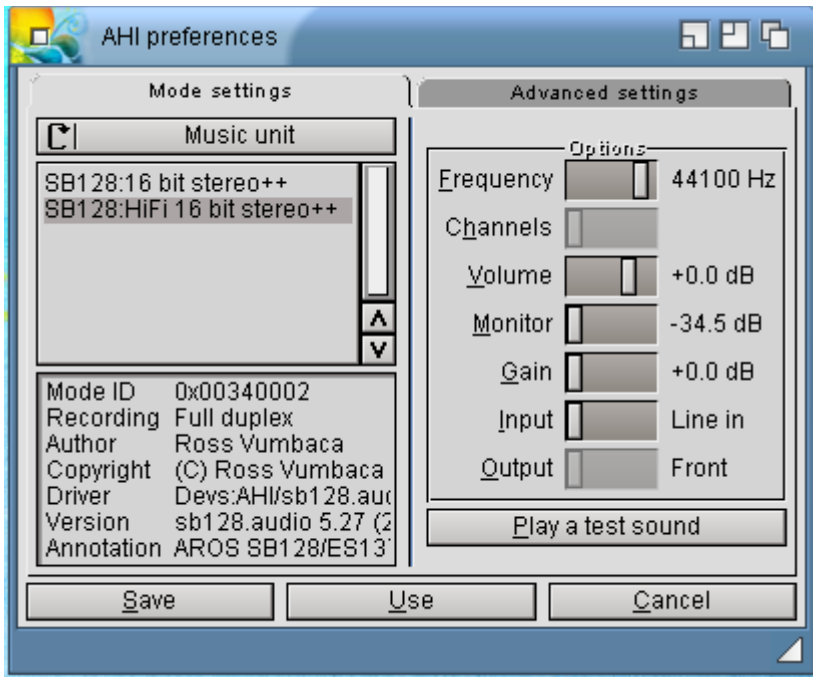
< The following options will decide how icons appear and font/dimensions of labels under them. Change the Max Label line length if you see truncated file names on your volumes.

3.3 Enabling sound

Sound will be normally disabled by default. Only few audio chipsets are currently supported. Just look at the beginning of this guide for a handsome list of supported chipsets. Anyway, to enable sound you'll need the **AHI** preference applet in **Prefs**.

AHI is the de-facto *AmigaOS and derived* standard audio layer. More informations about this are available at http://arp2.berlios.de/ahi.

Please select your hardware in the left top window and associate it to your *Music unit* and *Unit 0, 1, 2 and 3* devices. If your hardware is supported, you'll be allowed to change options in the right side of the window. Play a test sound to check whether your card is working or not. Some quite old AC97 chipsets are working, but the best option for hearing sound in AROS is using a cheap and easy-to-spot **Creative SoundBlaster Live!** card. AROS fully supports the EMU10K1 audio processor. Click on SAVE to make your choice permanent.

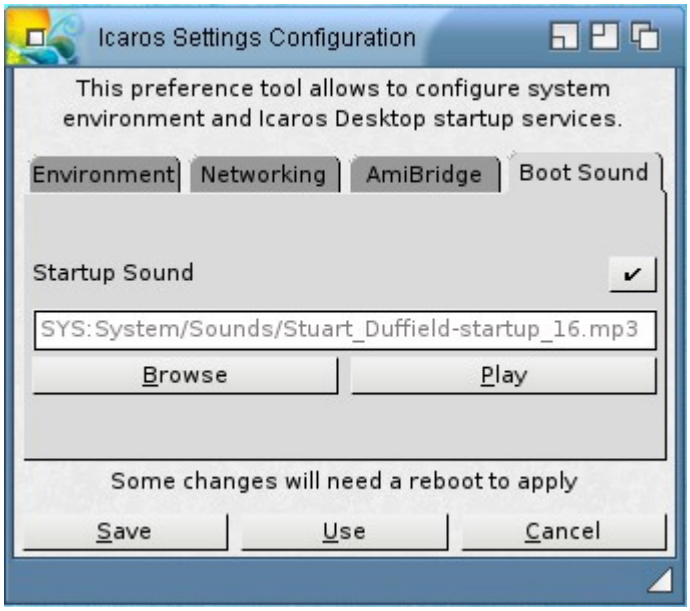


NOTE: please be sure to have enabled your card for ALL the units available in AHI, by cicking on the top-left cycle gadget in the Mode settings panel, or you may still encounter mute applications, when they should correctly play sound.

Sound in VMware (and QEMU)
Sound in VMware is now available. Please choose a SoundBlaster PCI128 sound card in AHI prefs for units 0-3 and Music, and save.

3.3.1 Choosing a startup sound

You can set a startup sound (or change the default one) with Icaros Settings in Prefs. Just open it and go to the Boot Sound panel:



Mark or unmark the checkbox on the right to enable/disable startup sound, click on Browse to select a MP3 file between the ones Icaros Desktop already provides or Play to preview it. Click either on Save or Use to set it as default sound. You can use whatever MP3 file you like, but we heavily suggest to choose short samples (you definitely wouldn't like to hear the hit of the moment every time AROS boots...).

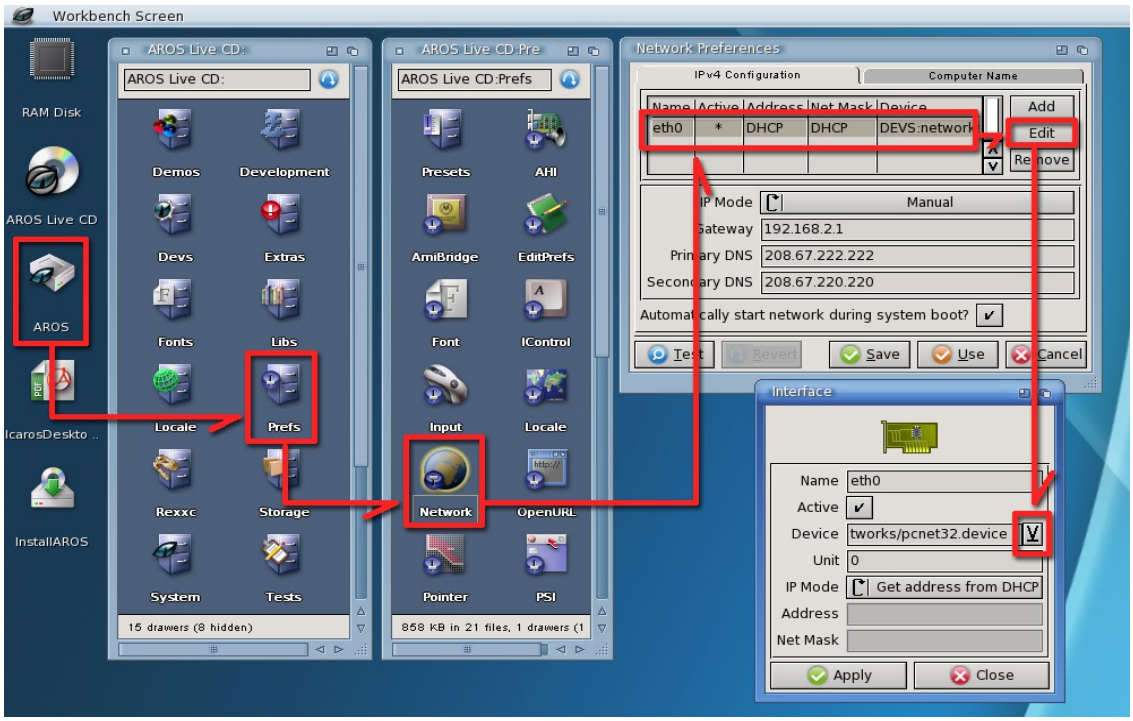
3.4 Configuring the network

Networking on AROS is now easy like in any other operating system, at least if you have a supported network or wireless card. AROS recently got DHCP support and a new preference tool called Network, however there's no *autoprobe* yet for network cards and, as usual, there is still a limited number of NIC drivers available. Luckily, those drivers cover a wide range of network cards and it's extremely easy to find one.

DHCP may be slower

We have noticed some network slowdowns when using DHCP (automatic configuration). While we are addressing the origin of the issue, you have better using a fixed IP address and enter a fixed domain name server (DNS) using the Manual IP Mode. Please ask your provider for a reliable DNS address.

In order to configure the network, you need to have Icaros Desktop Live! already installed on your hard drive (configuration files must be saved and system rebooted). When ready, just launch **Network** from the **Prefs** drawer.

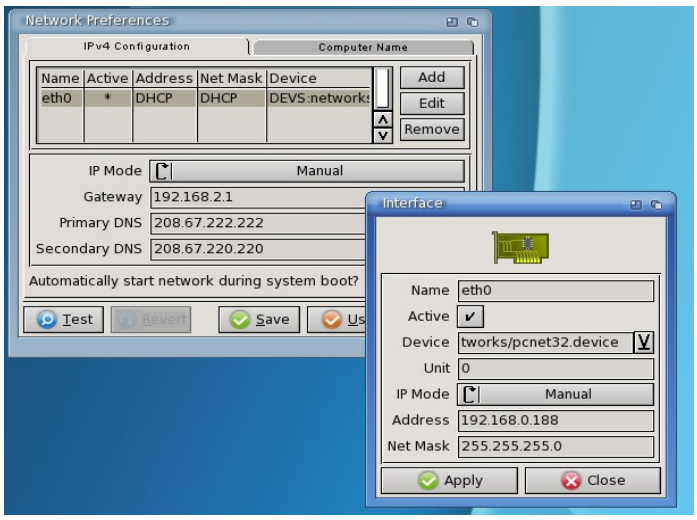


3.4.1 Automatic IP address

Icaros Desktop can be set up to look for an automatic IP address. However, it can't detect your network card and needs your help to find a reliable driver. Please open the Network prefs panel, look at the right of the Device field and press the down arrow icon. Choose a driver that fits your needs. You must know what is your network card, and it must be already supported by AROS. **On iMica systems, please choose the rtl8169.device driver.**

3.4.2 Manual configuration

Configuring the network by hand might be useful for people that often move files from other machines using YAFS. This will give AROS a fixed IP address that won't change every time it starts, depending on other machines' ones.



IP: Just edit as you wish, using addresses according to your local network. For instance, if your router is 192.168.0.100, and your computers are 192.168.0.10 and 192.168.0.11, you should give AROS another IP address starting with the first three numbers (192.168.0.) and another number, different from 100, 10 and 11: 20 might be a good choice. So correct it to 192.168.0.20.

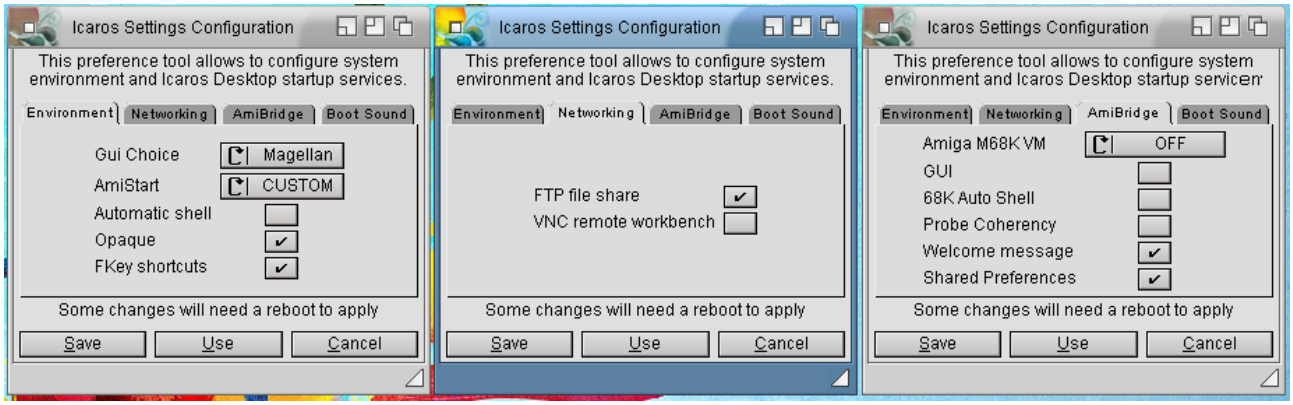
Netmask: a good value for netmask is 255.255.255.0, which practically means only the last group of digits will change, between computers, in your LAN. If you need something different, please look at any networking how-to over the Internet.

Place also your router/server address (192.168.0.100) in the **Gate** line (remove 192.168.2.1 and place 192.168.0.100). You need to know this information.

DNS1 and DNS2: you have two fields available for domain server address. Domain server allow you to use human-readable URLs like 'www.icarosdesktop.org' and they will transform them in their real IP address transparently. Many routers provide DNS service as well, so you can place your gate's address also in the 'DNS1' field, while the second DNS server should be the one provided by your ISP. If you don't know its address, you can use the ones provided by the OpenDNS.com site, which are **208.67.222.222** and **208.67.220.220.** Please look at www.opendns.com for any update about them.

3.5 Configuring Icaros Desktop services

Icaros Desktop comes with the network already configured, and with some services that make life easier for the user, but at the expense of some clock cycles. If you don't need some of them, you can easily gain some speed (even at boot-up) disabling them. Just run the **Services** preference tool in prefs and click **OK**:


Icaros Settings Configuration
This preference tool allows to configure system environment and Icaros Desktop startup services.
Environment Networking AmiBridge Boot Sound
Gui Choice Magellan
AmiStart CUSTOM
Automatic shell
Opaque
FKey shortcuts
Some changes will need a reboot to apply
Save Use Cancel
Icaros Settings Configuration
This preference tool allows to configure system environment and Icaros Desktop startup services.
Environment Networking AmiBridge Boot Sound
FTP file share
VNC remote workbench
Some changes will need a reboot to apply
Save Use Cancel
Icaros Settings Configuration
This preference tool allows to configure system environment and Icaros Desktop startup servicem
Environment Networking AmiBridge Boot Sound
Amiga M68K VM OFF
GUI
68K Auto Shell
Probe Coherency
Welcome message
Shared Preferences
Some changes will need a reboot to apply
Save Use Cancel

Starting from Icaros Desktop 2.0, the old Services tool has been replaced by a new one called Icaros Setting (which is, BTW, its direct evolution). You can recall a bubble hint by placing the pointer over any option name, and wait for a few seconds.

3.5.1 Changing default file manager (GUI Choice)

You can choose between Wanderer and Magellan. This setting will apply at startup, no matter if you SAVE or USE new settings on exit. Although both programs can co-exist in a single session, only one of them can be seen by AROS as current Workbench. You can also set this option to NONE. In this scenario, no GUI will be loaded at next startup except AmiStart (which can, indeed, be disabled as well using one of the following options), and a shell will automatically be loaded by system.

3.5.2 Automatic shell

If you're frequently using AROS shell, you might prefer having it immediately at your fingers when the system boots. Just mark this checkbox to enable this feature (which will automatically turned on if you select Gui Choice option to NONE).

3.5.3 Enabling/disabling Opaque

Opaque is the commodity which enables dragging of whole windows over the screen, with their decoration and contents. You can disable it, showing only borders while moving windows, but this will “block” temporarily their update.

3.5.4 Enabling/disabling FKey (Windows-like shortcuts)

Windows, but now also most other operating systems, use Alt+tab to browse between open applications. Icaros Desktop does this too with **FKey**, but since some users might find it “not enough amigan”, they can disable it. Please notice that this option also enables some advanced shortcuts for calling Scout, the file finder and so on (see the first chapters of this guide for a better explanation). This option won't affect Wanderer and Magellan specific shortcuts, that will go on working.

3.5.5 Enabling/disabling FTP server (file sharing)

There are many ways to transfer files from/to AROS. The best one is Icaros Desktop' embedded FTP server (**YAFS**), which runs automatically when network is enabled and DHCP is disabled. If you don't need it, however, you can turn it off. Turning on file sharing will enable networking too.

3.5.6 Enabling/disabling AmiStart

AmiStart is the nice dock/toolbar sitting on the bottom of the screen. It helps Icaros Desktop being a user-friendly operating system, since it is really fine for browsing files and executing applications. On rare occasions, AmiStart creates glitches and interferes with other applications (for example, **DirectoryOpus** and **AmiBridge**), so maybe you'd like to disable it. Users of Icaros Desktop with old hardware will prefer disabling AmiStart, since it needs memory to run, and can slowdown the AROS experience while opening its menus.

3.5.7 Changing AmiStart behavior

If you've choosen to enable **AmiStart**, you will be prompted also to choose its behavior. See chapter 1.8 for more information about this.

3.5.8 Enabling VNC Server (remote admin)

Starting from Icaros Desktop 1.2.5, you can enable a **VNC server** to remotely control your Icaros computer. Enabling this, your workbench can be exported to another computer of the local network and displayed in a window, using a VNC client of your choice. We suggest using **TightVNC** on Windows.

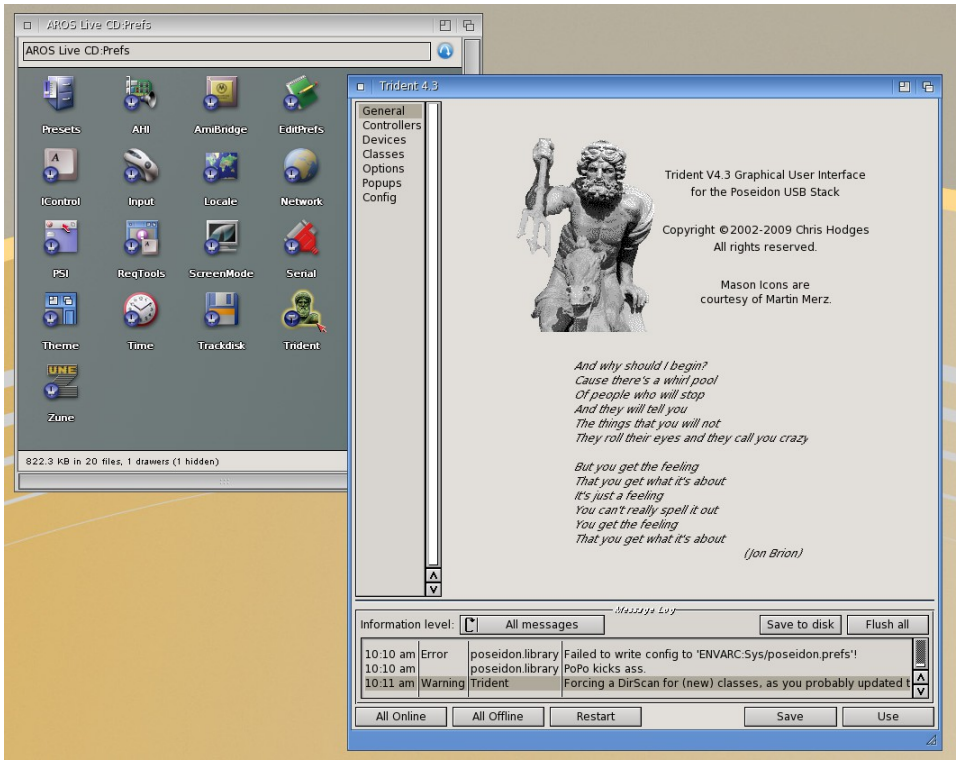
3.5.9 Enabling AmiBridge Amiga™ Virtual Machine

Icaros Desktop can now run the Janus-UAE Emulator in coherency mode at startup (see chapter 7 of this guide). This way, people that heavily use old AmigaOS M68K applications can now run them immediately after bootstrap. This option lets now choose between AROS M68K and AmigaOS 3.x for legacy applications. See chapter 8 for further information about Amiga M68K integration.

Warning!
Janus-UAE has improved a lot in the latest months, but please notice it is not *perfect* yet. Some times it may crash, and can make the whole system unstable. We suggest to keep this option disabled unless you are practically using Icaros as an Amiga™ replacement system.

3.6 Configuring USB peripherals

Starting with version 1.1.3, *Icaros Desktop* integrates **Poseidon USB stack,** enabled by deafult at startup. From Icaros Desktop 1.1.5, Poseidon has been loaded as ROM module and can be used to boot Icaros straight from a USB DVD drive. In order to configure USB peripherals, you need to open the Trident application from the Prefs drawer in your System partition.



IMPORTANT: Devices are DETECTED, not USED!

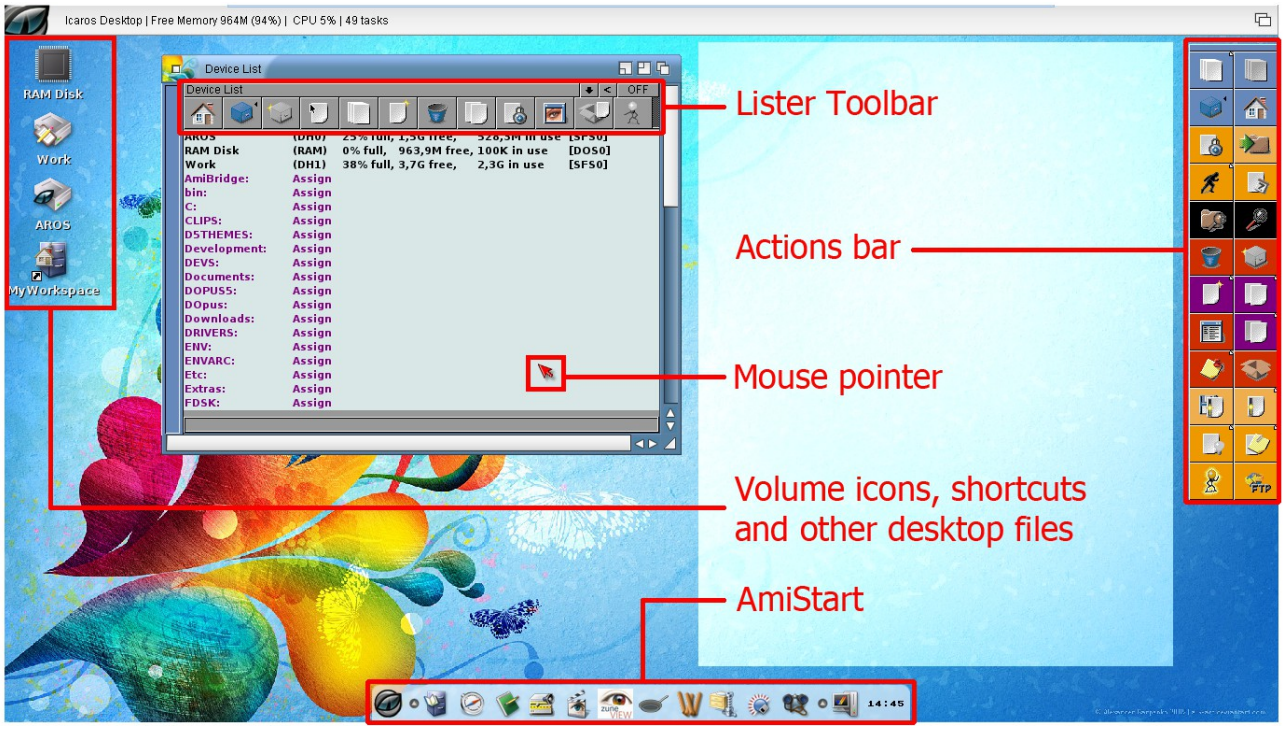
Please remember that Poseidon is only a USB stack, not a collection of drivers for your devices. Its job is just scanning your USB hardware, detecting it, and report to the system what is connected to the PC. Reading that a “CanonScan LIDE scanner has been detected” unluckily doesn't mean that AROS can use it to capture pictures. In order to do that, specific drivers and software must be developed first. For now, AROS can use only pendrives, keyboards, mice and some other similar human controllers. Other “real life” USB applications like networking, audio and video capturing are still missing or only partly implemented. We're still working on them, please be patient or helpful...

Where's my USB drive icon?

AROS' USB mass storage support still has some flaws. Although every USB pendrive should be correctly detected and recognized, not every partition on them can be mounted. We are still ironing out the issue, but in the meanwhile at least a good part of them should already work. Just try some other pendrive, and you'll surely find one with a FAT partition you can use. Speed issues with FAT partitions have been fixed since version 1.2.2, however please prefer FAT partitions over FAT32 ones, for the best compatibility.

4. Managing Icaros with Magellan

We don't feel very comfortable with PC operating systems acting as phone ones. We strongly believe that computers are computers and their users expect to use them accordingly. While phones have limited screen size (even at full HD, a 6” screen will always been harder to focus than a 23” one, at the same resolution) and relatively few, big icons calling the main applications, computer users generally love to customize their desktops and keep their files in handy locations. In other terms, while phones and tablets interfaces are application-centric, computer GUIs have always been – since Mac Finder and Amiga Workbench 1.0 age – file-centric, allowing people to perform common and uncommon file operations (like copying them between directories or adding a comment to them, or packing them in a compressed archive) with simple menus and tools. Standard Amiga interface (being it AmigaOS Workbench or AROS Wanderer) was elegant and really ahead of its times, but, unluckily, time has not been a gentleman with her. File managers for mainstream operating systems improved a lot, introducing tools, toolbars, options and concepts that made life easier, which are now available to Icaros Desktop users as well, thanks to the recently re-released (and open-sourced) DirectoryOpus 5 “Magellan” file manager. We've almost thrown away its standard configuration and changed every toolbar, added custom menus and set its environment options in order to create a good replacement for Wanderer which would, obviously, make the most of the default programs in Icaros Desktop.



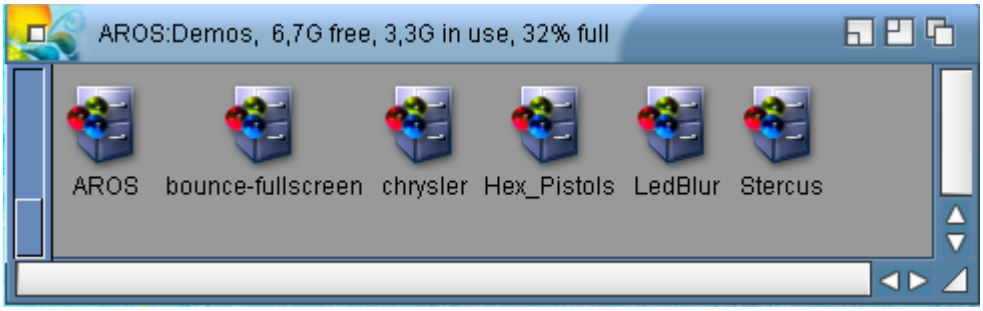
Icaros Desktop's default view with Magellan

Note about AmiStart
AmiStart works in Magellan like in Wanderer, except for the fact that it can't open drawers in listers like it does in Wanderer windows. You can still access all files the same way, though, and use AmiStart to run programs like Wanderer and wbrun command do.

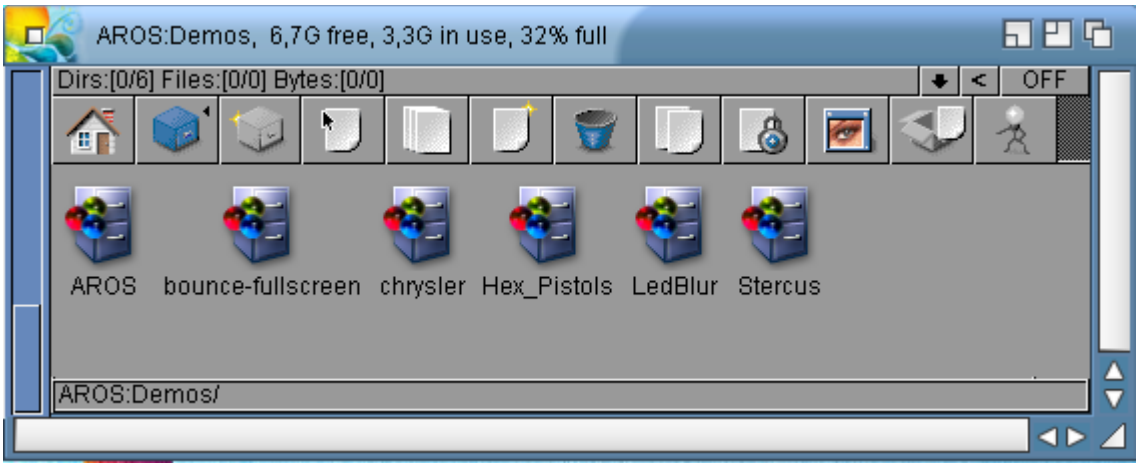
This is a summary
DirectoryOpus 5 “Magellan” comes with its own documentation, more than 500 pages in two different PDF manuals covering every aspect of the program. Please read them to understand all Magellan's inner working. In this section we will give just the basic informations and explain how (and why) Magellan options and environment have been set in Icaros Desktop.

4.1 Listers

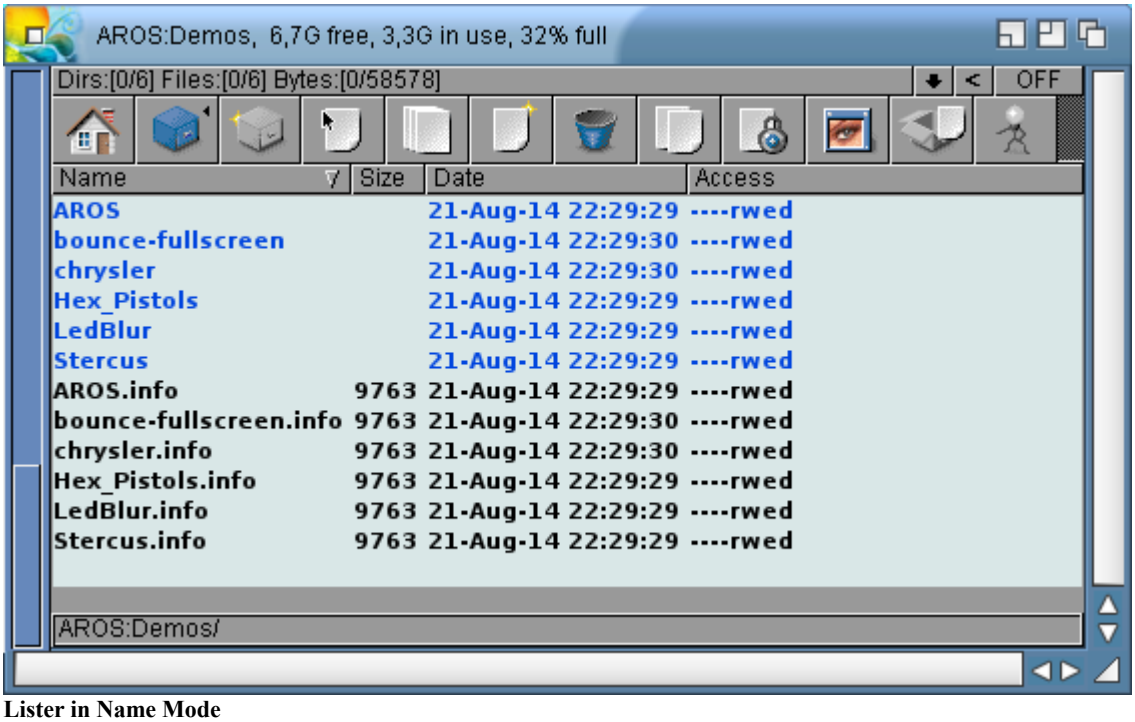
“Listers” is Magellan name for drawer and volume windows. They basically show files and directories, which can be represented as names (details) and icons.



Lister in Icon mode

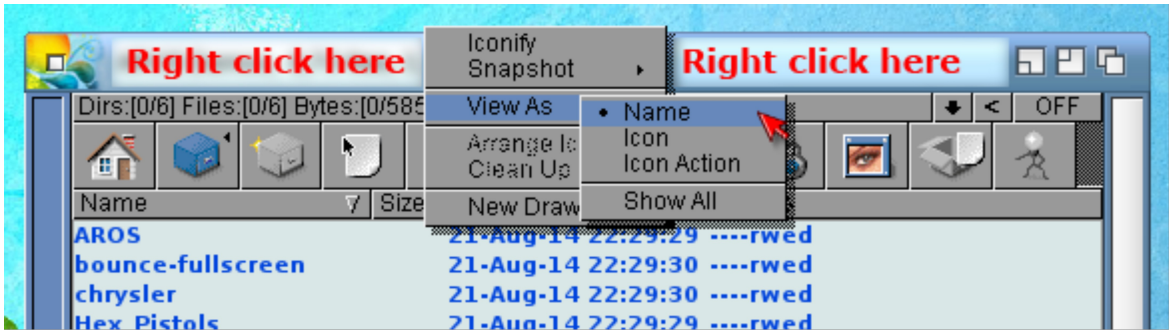


Lister in Icon Action mode



Lister in Name Mode

You can switch output modes by right clicking **on the title bar** and selecting the option **view mode** in the context menu:



You can 'freeze' output mode with the Snapshot options, in the same menu. The Show All option will apply in icon modes only and it will act exactly as on original workbench, showing or hiding files without a icon .info file. Fields like name, size, date and access (protection attributes) can be moved, resized and ordered as preferred. We've tried to stay as much compatible to Wanderer as we could, so that informations like position and view mode might be interchangeable between Magellan and Wanderer. These settings, however, can be changed by users whenever they want.

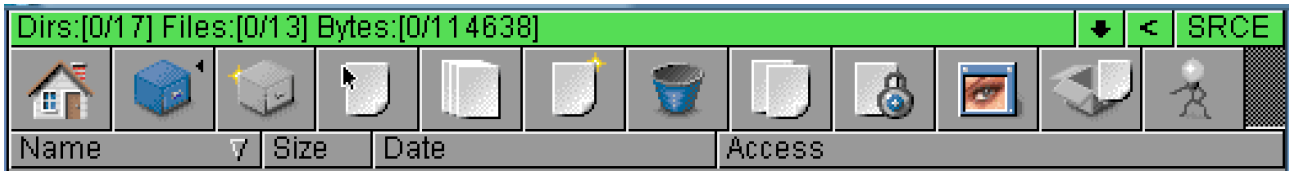
Different behavior

Magellan manages file differently in name mode than in icon modes. In name mode it will always use its own detection routines and internal filetypes to run programs and start associated applications, while in icon modes it will use a sort of hybrid between its own and AROS system routines. For example, double clicking on a PDF file in name mode will make Magellan look into its own data base of file types, detect that it is a PDF file and open its own associated program (ArosPDF). But double clickin on the same file in any icon mode will make Magellan follow another path, using system default application set in the envarc:SYS def_*.info files. **This will work for all files but executables**, which will be handled by Magellan no matter the lister mode. In all modes, moreover, Magellan will keep the right click context menu associated to files in its own filetypes. More about this in the following sections.

4.1.1 Lister toolbar

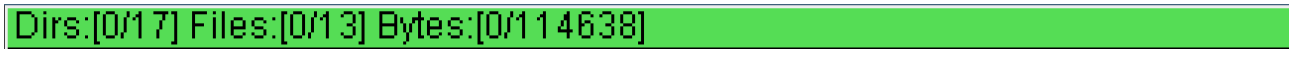
In **name** and **icon action** modes, listers include a toolbar we configured to allow in-window management actions like (multi)select, rename, copy and protect files, quickly create LHA and ZIP archives, generate thumbnails for datatype-known image files. Operations which involve more than a single lister, like copying or moving files from a directory to another, can be accessed by the Actions Bar on the right. The Actions Bar also provides almost all features of lister toolbar, since users may decide to show only icons in listers, without the toolbar.

Icaros Desktop provides lister toolbars configured like this:



This bar includes a noticeable number of elements:

1) the **lister sum of contents**, with the number of selected/total directories, files and bytes. In this example

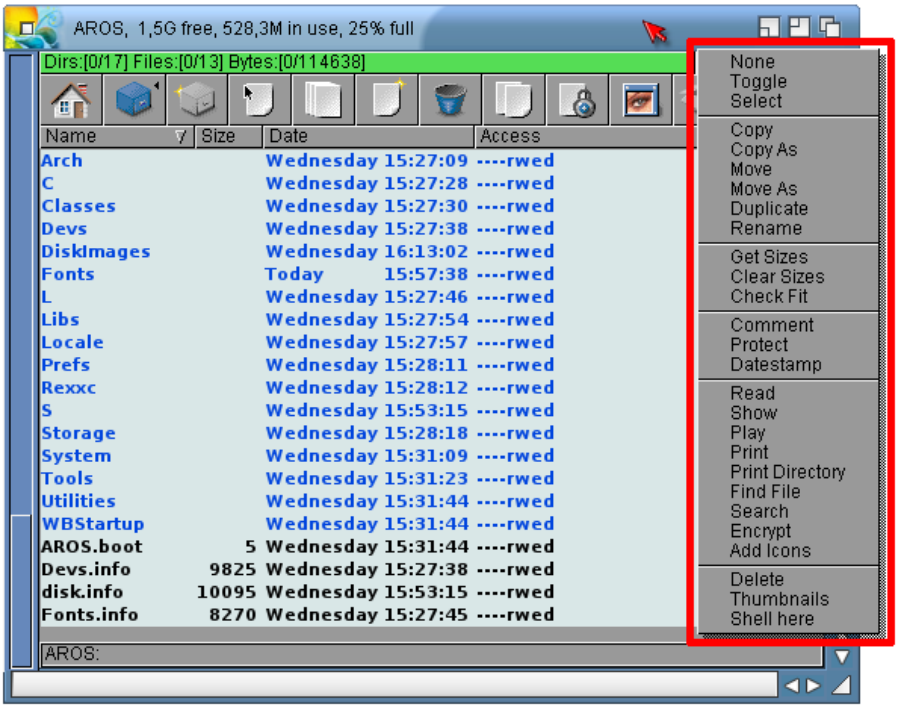


we have 0 selected directories from a total of 17, 0 selected files from 13 and 0 selected bytes from a total of 114,638.

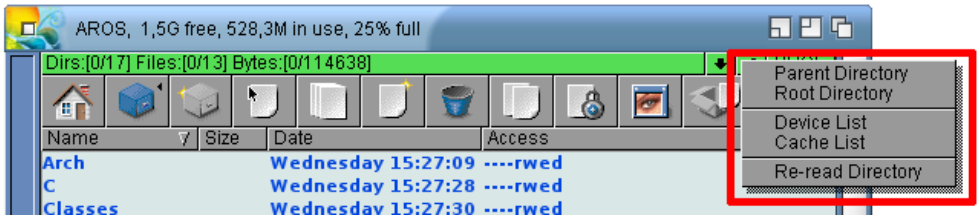
2) **Fields for name mode**:

Click on a filed to sort files using that particular order, or on the up/down arrow to select a increasing or decreasing order. Move the boundary between any field to resize them, or drag a field and drop it elsewhere to order fields as you like. You can also add or remove fields using DirectoryOpus 5 settings.

3) The lister **menu button** ( ) which opens this menu:



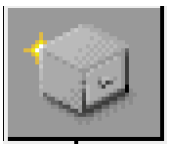
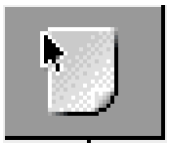
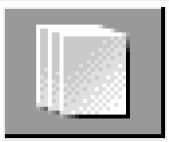
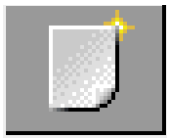
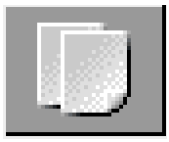
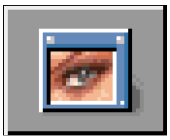
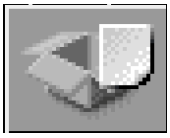
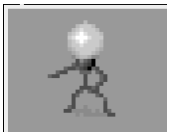
4) the **parent button** ( ), which opens this other menu instead:



5) the status button ( ), which allows to set a lister either in source, destination or neutral status (see next paragraph).

6) The **Actions buttons**, which act differently when clicked with either the left (default option) or the right (secondary option) button.

Button	Left click	Right click
	Home: turns back to the device list. All volumes and assigns will be shown in the current lister.	**Shell**: opens a new AROS shell on the screen. The current directory will be the one shown in selected lister.
	Parent: turns back to the parent drawer. Its contents will be shown in the current lister.	**Root**: turns back to root directory of the current volume. Its contents will be shown in the current lister.

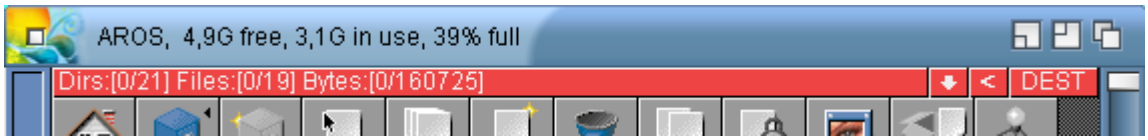
	**Create new drawer**: creates a new sub-directory in the current lister. You'll have to enter its name in a field.	**Create new assign**: lets the user create a new Assign that point to the opened drawer in lister.
	**Pattern select**: allows to select all files matching a pattern. For instance *.txt will select all files with txt extension.	**Toggle**: selects all currently unselected files, and unselects all currently selected files.
	**Select all**: selects all files and directories shown in current lister.	**Select none**: unselect all files and directories shown in current lister.
	**Rename**: renames the current selected files(s) and/or drawer(s), even in a multiple fashion.	Currently not used
	Delete: permanently deletes all current selected files and drawers. Warning! It may be not-recoverable.	Currently not used
	**Copy**: copies selected files and drawers to another destination, either a dest lister or a new one to choose.	**Datestamp**: allows to modify date and time for selected files and drawers.
	Protect: changes protection bits (attributes) to selected files and drawers.	**Comment**: allows to add a personal comment to files. Comments can be shown in listers when in name mode.
	**Thumbnail selected**: creates a .info file with a preview for selected image files only.	**Thumbnail all**: creates a .info file with a preview for every datatype-known image file found in current lister
	**Quick LHA compress**: compresses selected files and folders into a LHA archive. **Warning: at least 2 files must be selected!**	**Quick ZIP compress**: compresses selected files and folders into a ZIP archive. **Warning: at least 2 files must be selected!**
	**Help**: since Magellan does not allow bubble hints, this button shows a quick reference image for lister toolbar	Currently not set

4.1.2 Source, Destination and neutral listers

This concept has always been one of Dopus' strength but, strangely enough, no mainstream operating system ever replicated it. Yes, it is not so much intuitive and this might be the reason, but we're truly excited to take advantage of it. With DirectoryOpus 5 you can open as much drawer windows as you like, but you can also set a lister as source (SRCE) and another as destination (DEST) for your file operations. Source and Destination listers are easy to spot, because the upper part of their toolbars changes color either to green or red. Listers with grey toolbar, on the other hand, are completely neutral and classified as “OFF” in the **status button**.

Lister in neutral (OFF) status

lister in source (SRCE) status



lister in destination (DEST) status

Once you set a lister as source, and another one as destination, most of file operations will start from file selected in the source lister, to end up into the destination one. For instance, you can set lister “A” as source and lister “B” as destination, select some files from lister “A” and click on the “Copy” action button, then selected files from “A” will be copied into the “B” drawer. In Icaros Desktop, Dopus has been set to change source and destination folders dynamically: this should make selection easier, but you can force listers to become either source, destination or neutral directories by clicking on the status button (see above), after activating it.

The status button also allows to open a setting editor for listers and to lock position of a lister. After selecting the latest option, the windows can not be moved until the 'lock position' option will be disabled.

4.2 The main menu

You may call Magellan's main menu by right-clicking on a empty position of the workbench. It will show file manager's main sub menus and two customized ones called 'Programs' and 'Icaros'.

We'll leave the first four sub-menus because their options are either self-explanatory, or better explained in Dopus documentation (which comes, as we said, bundled among Icaros manuals in PDF format). We will now concentrate on the last two, while the Settings menu will be explained later.

4.2.1 The “Program” menu

Program allows to run Icaros default applications with ease. It somehow replaces AmiStart so you can quietly quit it without loosing its main functionalities.

4.2.2 The “Icaros” menu

Icaros sub-menu allows to perform some specific actions:

About → Shows Icaros Desktop version and AROS authors
Shell → open a shell (command propmt) window
User Manuals → opens the directory where PDF manuals are stored

Actions Bar → turn on/off the graphical actions bar on the right, or returns to the graphical actions bar if the text bar is selected
Actions (Textual) → turn on/off the textual actions bar on the right, or switches to the textual actions bar if the graphical one is selected
FTP Bar → opens/closes the graphical toolbar for DirectoryOpus' integrated FTP client, or switches to the graphical version of the bar
FTP (Textual) → opens/closes the textual toolbar for DirectoryOpus' integrated FTP client, or switches to the textual version of the bar
AmiBridge Bar → opens/closes the toolbar for AmiBridge
DiskImage GUI → run the DiskImage GUI program, which allows mounting and unmounting drive image files, such as ADF and ISO ones.

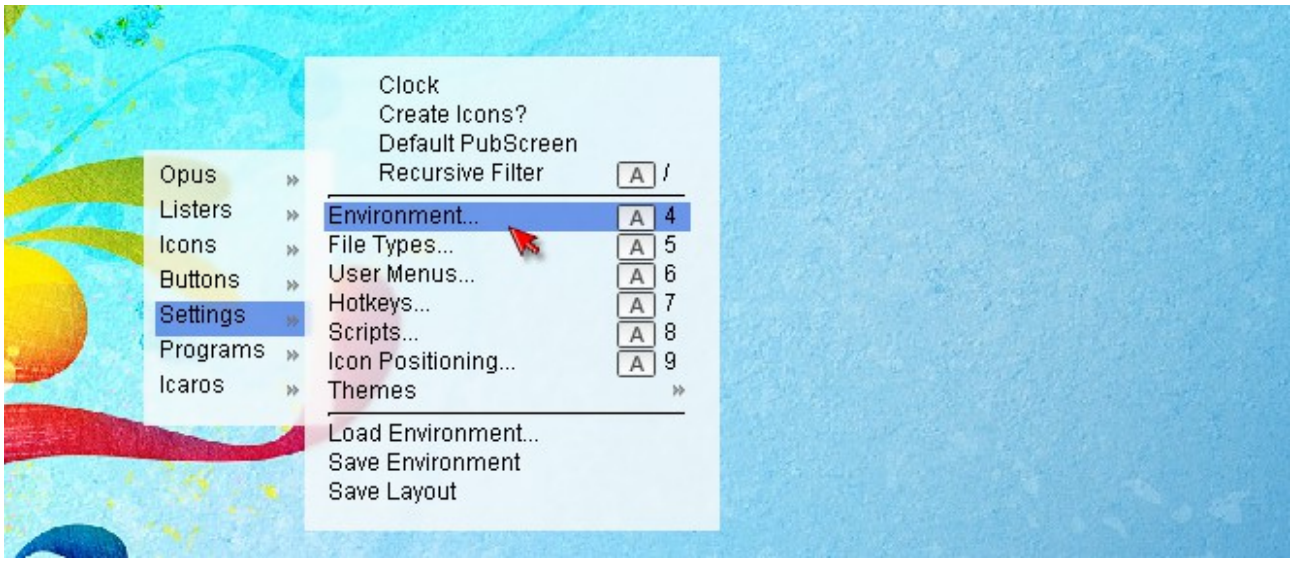
Reboot computer → cold-resets the whole system and restarts it from the POST screen
Reboot Icaros → equivalent to a warm reset, it keeps the current session but reloads Icaros Desktop alone

4.3 Customizing Magellan

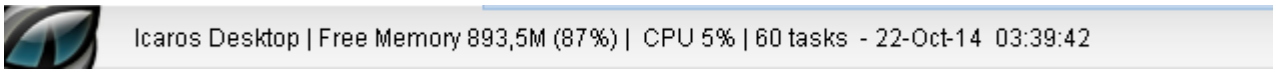
Magellan is easily configurable. Once you know where to put your hands, it allows to do basically whatever you like with its options and behavior. You can create new menus and toolbars, modify the current ones, make them behave differently and set you work environment the way you like it. All this freedom, however, has a price: complexity. It will take a while to understand and master all Dopus 5 options, menus

and concepts, but once aquired the skills, nobody will stop you.

In this section we'll concentrate on basic options, the ones used for customizing your desktop environment as you like. How to change desktop wallpaper, lister colors and so on. More advanced subjects like file types and toolbars will be explained later. Let's open the Settings menu from Magellan main one:



Clock → adds date and time to the main toolbar:



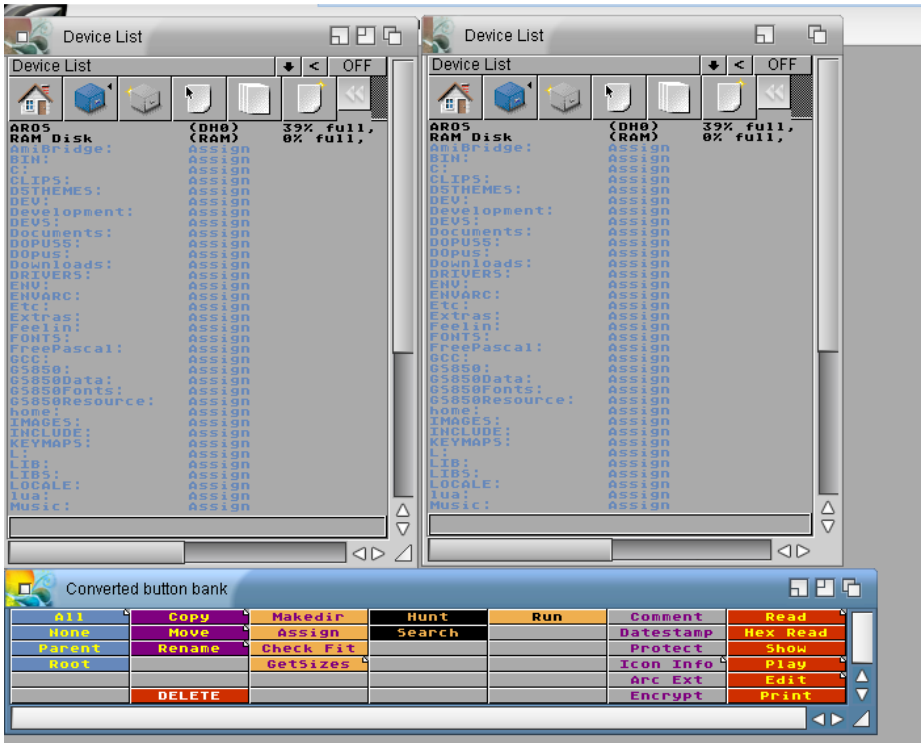
Create icons? → once selected, DirectoryOpus 5 will create a .info files for newly-created directories. Most of times, however, you will still have the choice wether doing that or not.

Default PubScreen → makes Dopus' pubscreen the default one. It does not matter when used instead of Wanderer, since it would run on the default pub screen anyway.

Recursive Filter → when the option is set to on, Magellan will ask for a different path whenver a operation should be done on subdirectories. When turned off, instead, subdirectories will be treated normally.

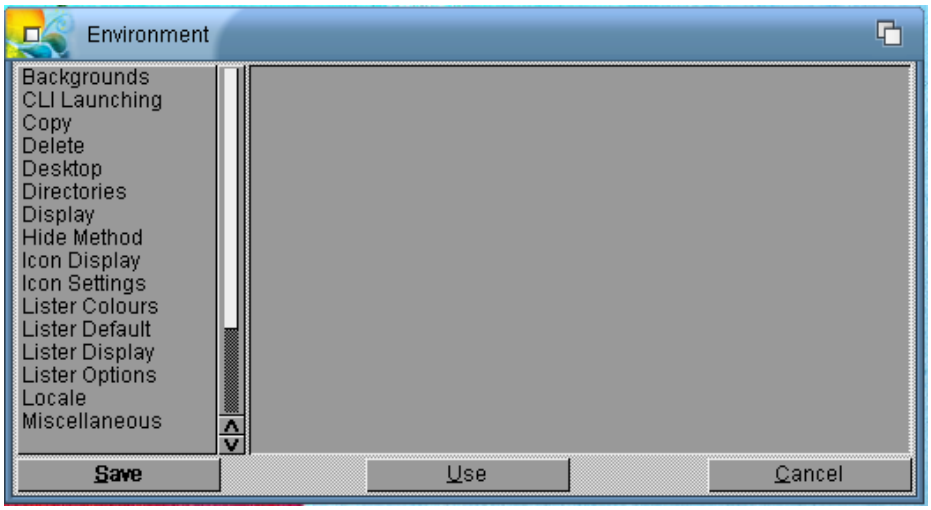
Themes → loads a 'theme' for DirectoryOpus 5. A theme is basically an archive including all Dopus settings for layout, environment, backgrounds, fonts, system sounds, screenmode, menus and so on.

Load/Save Environment → loads a preconfigured environment (default is Icaros' current one). You can set Dopus 5 to work in a different way a and save it as a new environment, giving a simple name to remember it. Icaros already provides some preconfigured environments, for instace this is the Dopus4Type one, which mimics how DirectoryOpus 4 behaved:



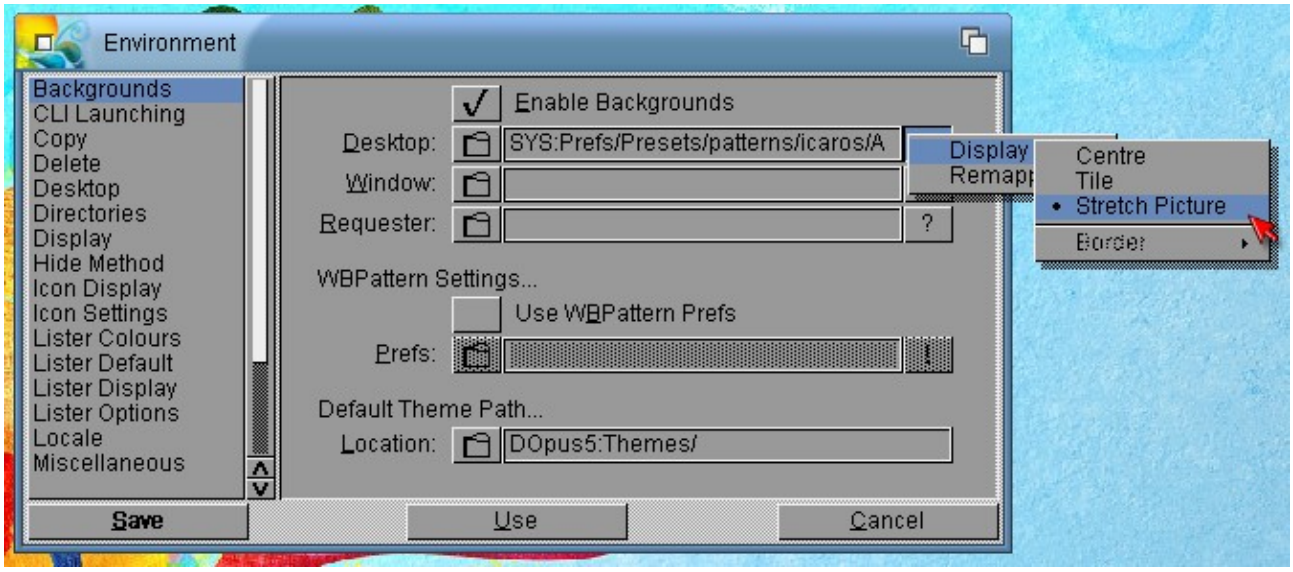
4.4 Environment

You can consider the Environment editor (from the Settings menu) the Dopus 5 equivalent for many control panels in AROS' Prefs drawer. We will see here just some of them.



4.4.1 Backgrounds

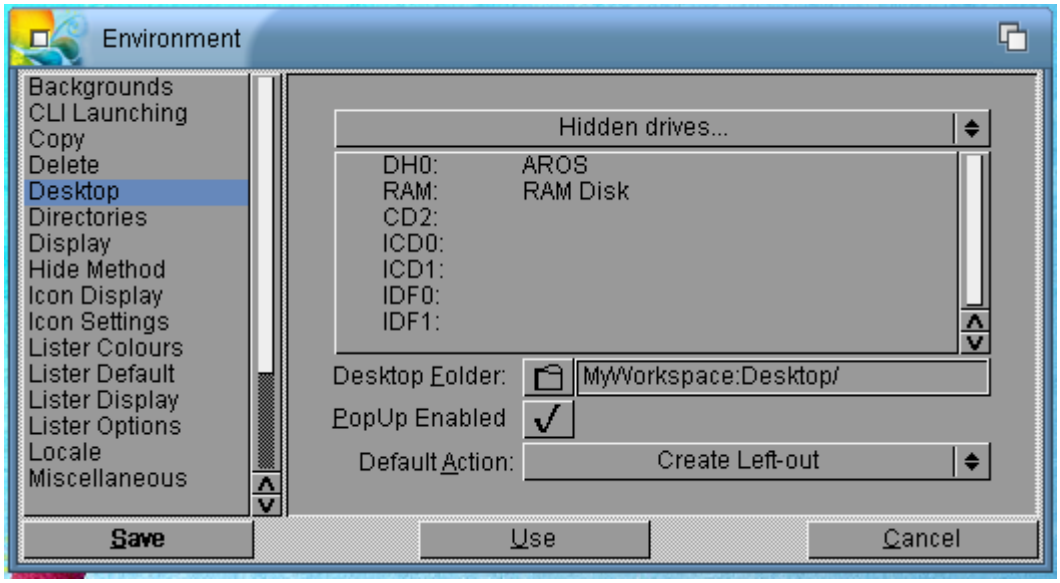
The backgrounds panel allows to change background images for desktop, windows and even file requesters. You may also change behavior between centered, tiled or stretched image, and decide the rendering quality. Obviously, you should always keep the best result one, since nowadays processors are many orders of magnitude more powerful than original 68000 ones. This option might still be helpful, however, when setting quality of Dopus 5 for M68K inside of AmiBridge.



The WBPattern settings option does not have any impact on AROS, since AROS does not have a WBPattern preference tool in Prefs.

4.4.2 Desktop

This panel allows to hide/show volumes on the workbench, enable/disable pop up windows and decide what to do when you drop an icon onto the desktop.

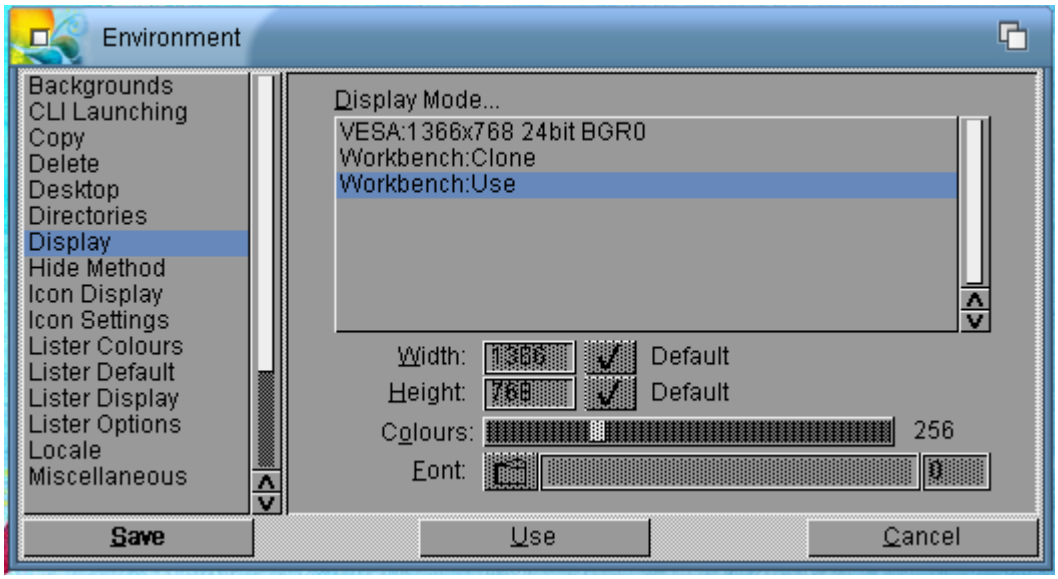


Default action is “Create left-out” which is, basically, a shortcut in the classic Amiga spirit. Magellan, however, can go ahead of this and use the desktop like any other modern operating system, letting user to fill it with files, icons and (why not?) a lot of unused garbage. So **Default action** can change to “Move to desktop” (file will be deleted from original position and placed in the desktop directory) and “Copy to desktop” (file will be copied from original position to desktop directory – you will be able to edit the copy but the original won't be affected) or even doing nothing (“None”).

You can set the default desktop directory with the **Desktop Folder** option. Icaros Desktop already sets it to a MyWorkspace: subdirectory (which is normally hidden), even if the chance to use the desktop as a normal drawer is turned off by default.

4.4.3 Display

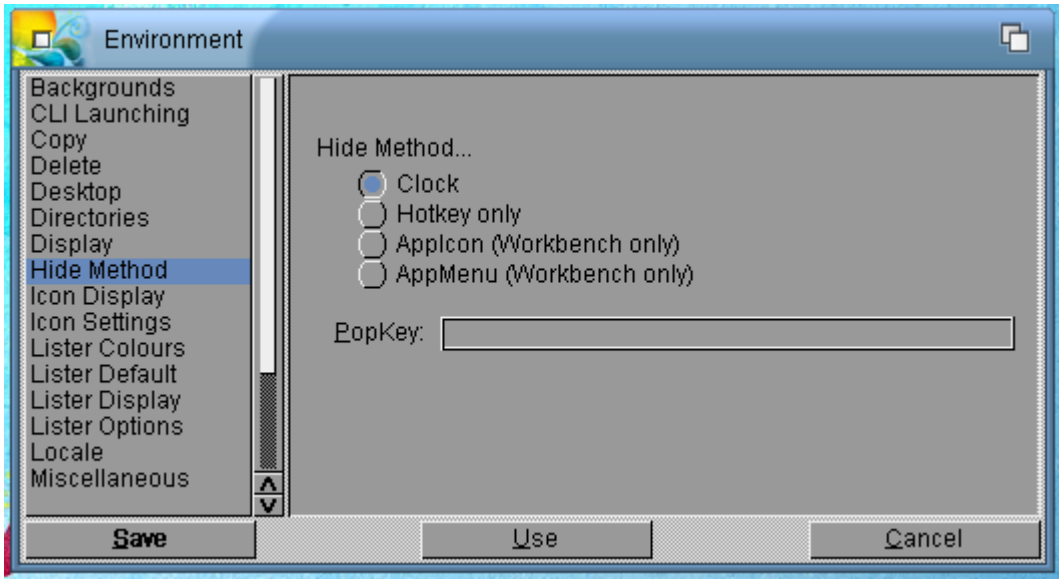
Nothing really amazing here: if you wish to run Magellan in a different screen, with a different resolution, you can set it here.



Notice: for some reason, we couldn't see more than 16 colors when using Magellan for M68K with AmiBridge.

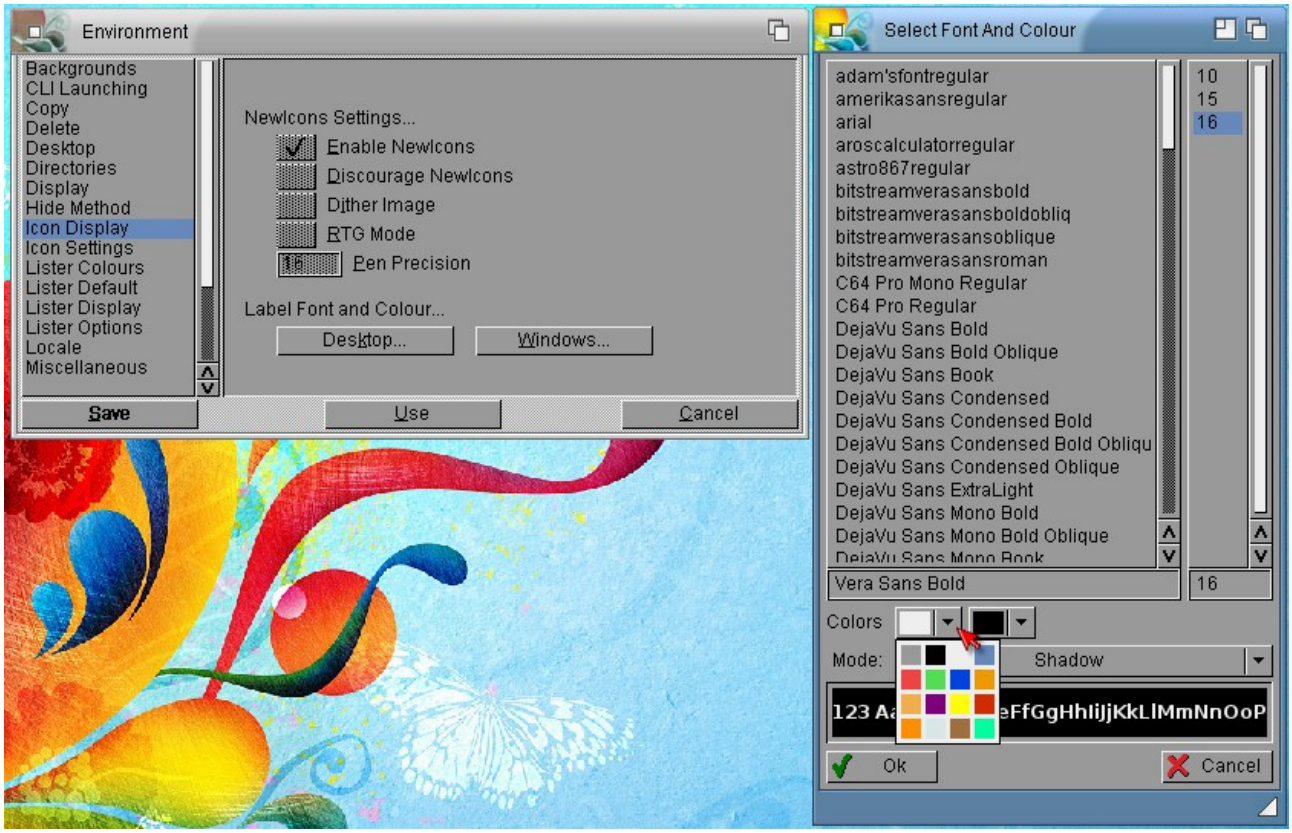
4.4.4 Hide Method

Pay attention to this panel! It allows to change the way the system will hide windows when iconized/hidden. A wrong setting might make the hidden windows impossible to display again (there are still some limitations with AROS. Be patient...). Keep it to “clock” for safety.



4.4.5 Icon Display

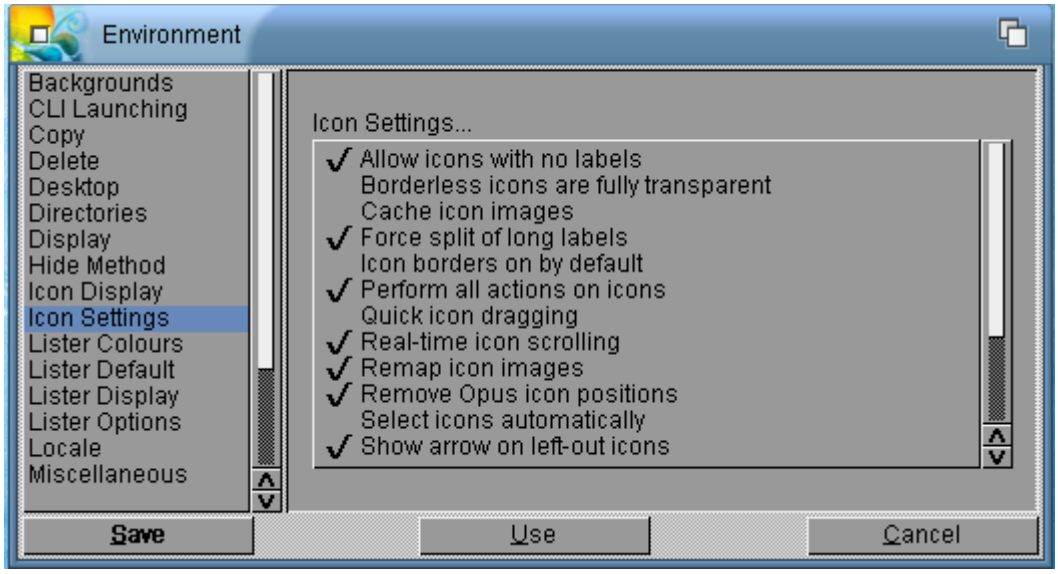
Icon Display panel allows to change the way Magellan renders icons on the screen. But most options are disabled in RTG modes, so we will be able just to change foreground and background colors for labels on desktop and in windows.



Notice the Mode: option. It allows to change style in order to create better contrast.

4.4.6 Icon Settings

Everything has to do with icon handling can be set in this panel. For a complete explanation of every single option, please read Dopus 5 documentation. We will just explain why we have set some options and skipped others.



Allow icons with no labels is a compatibility option which allows some (broken) icons being displayed correctly. We set it on to avoid rare, but still possible problems. **Cache icon images** improved speed on original Commodore machines but it's not really useful in a world were fast hard drives and SSD units are the norm. We set it off also to force Magellan reloading icons after a change. You may activate it to improve speed, bu be aware of the fact that, sometimes, directory contents shown in icon/action listers might not be refreshed correctly (for instance: you have changed a .info file, and Dopus still shows the old one). **Force split of long labels** tells Dopus 5 to write long labels on more lines: we did the same for

Wanderer, we are doing this here too for coherence. **Icon borders on by default** has been disabled, because turning it on would “buttonize” icons, placing a square border around them. **Perform all actions on icons** extends to icon files every action done on their parent file: copy “pippo.mod” from lister A to B, and also “pippo.mod.info” will be copied as well. Rename “Pluto.doc” to “Jupiter.doc” and also “Pluto.doc.info” will be renamed to “Jupiter.doc.info”, and so on. Disable this option to manage .info files independently from their parent ones. **Quick icon dragging, Real-time icon scrolling** and **Remap icon images** have been set to off-on-on for image quality reasons: weird glitches may happen changing these settings. **Remove Opus icon positions** and **Use Workbench icon position** have been activated to prevent Dopus saving its own positions for icons: we'd prefer both Dopus 5 and Wanderer to share the same position informations, just to keep some coherence when switching GUI. Invert these settings if you prefer, but maybe only when sure you wouldn't go back to Wanderer too much often. **Select icons automatically** extends Perform all actions on icons: select a file, and its icon will be automatically selected as well. **Show arrow on left-out icons** places a little arrow on a corner of desktop aliases: it can be really useful when desktop folder is on, to clearly differentiate left-out icons from common files. **Split long icon labels** has not been set because it would cut in half too much names. We also decided to **Use custom drag routines** because we experienced graphic corruption with icons otherwise.

4.4.7 Locale and Miscellaneous

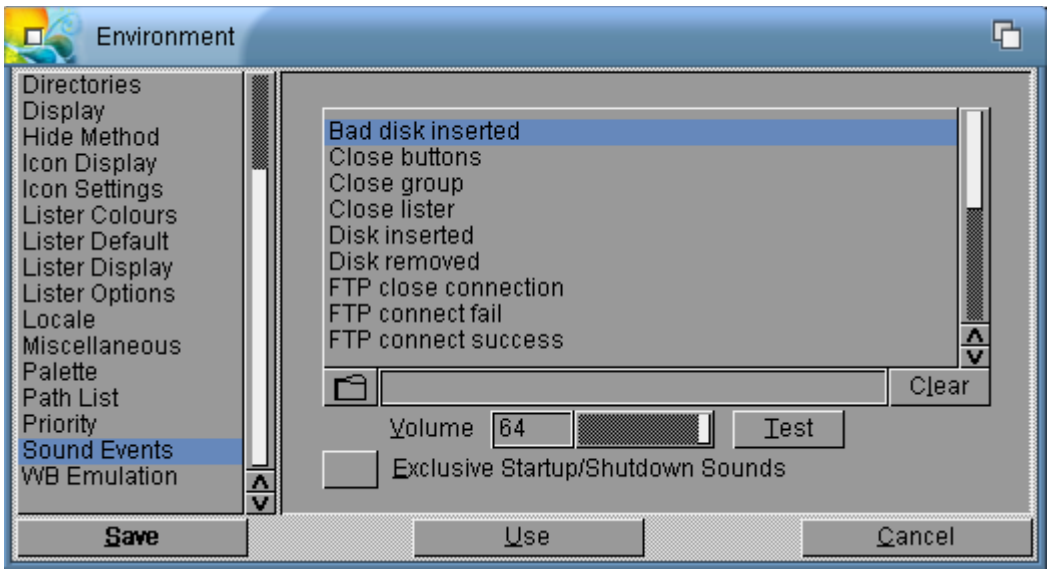
Locale panel sets date format and some other minor attributes. The Miscellaneous panel, however, is much more intersting:

Mouse buttons over inactive banks, as the name suggests, lets the user click on tools belonging to a inactive window. For instance, you can click on a button bar even without activating it before. Unluckily, this is currently half true: even with this option is enabled, clicking on a button on a different lister than the active one can produce no results. You may see this behavior with the actions bar (see later), when you might need to click more times to have a command performed. **Filetype Sniffer** is a cosy utility which lets you create a file-type association with (relative) ease. The **Thin Gadget Borders** option is a must on RTG screens like AROS ones while the other options should be self-explanatory. Just an advise: the time interval in **Popup Delay** is measured in 50th of seconds, so the default 4 value means 2 tenth of a second. The **Custom Screen Title...** field allows to change default top bar caption when Dopus windows or screen is selected. For a complete list of %variables please see the document “DOpus582.pdf” included in Icaros user manuals, page 50 (of the document, so actually page 57 of 124 on ArosPDF), or use the inline-help provided by the folder-icon button at the left of the input field. Default string for Icaros Desktop is:

```
Icaros Desktop | Free Memory %fcS (%fm%%%) | CPU %pu%% | %ta tasks
```

4.4.8 Sound events

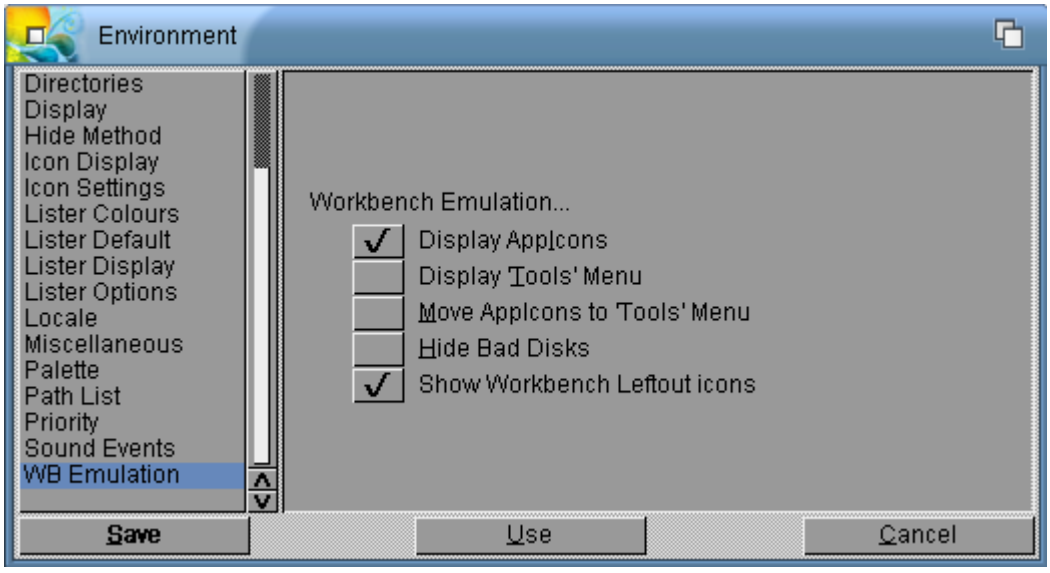
This is probably one of the funniest options in Magellan, since it allows to set a specific sound for practically every system/GUI event.



Supported sound format is AIFF. So you'll need sounds in this format, or a utility to convert them from other, more conteporary ones. We kept this option 'as is' because we feel that everyone has his/her own opinion about computers making funny sounds every minute, so the best thing we could do had been not setting sounds at all. Please notice the options for startup and shutdown sound, which are handled independently from the “Boot Sound” in Prefs/Icaros Settings: to avoid cacophonic results, please remember to disable sound in Icaros Settings when enabling jingles in Magellan.

4.4.9 WB Emulation

Last but not least, the WB Emulation panel decides how Magellan should replicate Wanderer functions.



The **Display AppIcons** option allows Magellan to show minimized applications in form of a little icon. Please **do not** enable **Display 'Tools' Menu** and **Move AppIcons to 'Tools' Menu**, because these options are currently not supported by AROS, so they will end up in hiding minimized application windows forever (unless you find a way to do this externally, with either a popup key combination or a tool like WiMP). **Show Workbench Leftout icons** lets Magellan show screen aliases set by Wanderer (and happily stored in .backdrop files).

5. Icaros and other computer on the local network

5.1 Sharing files over the local network...

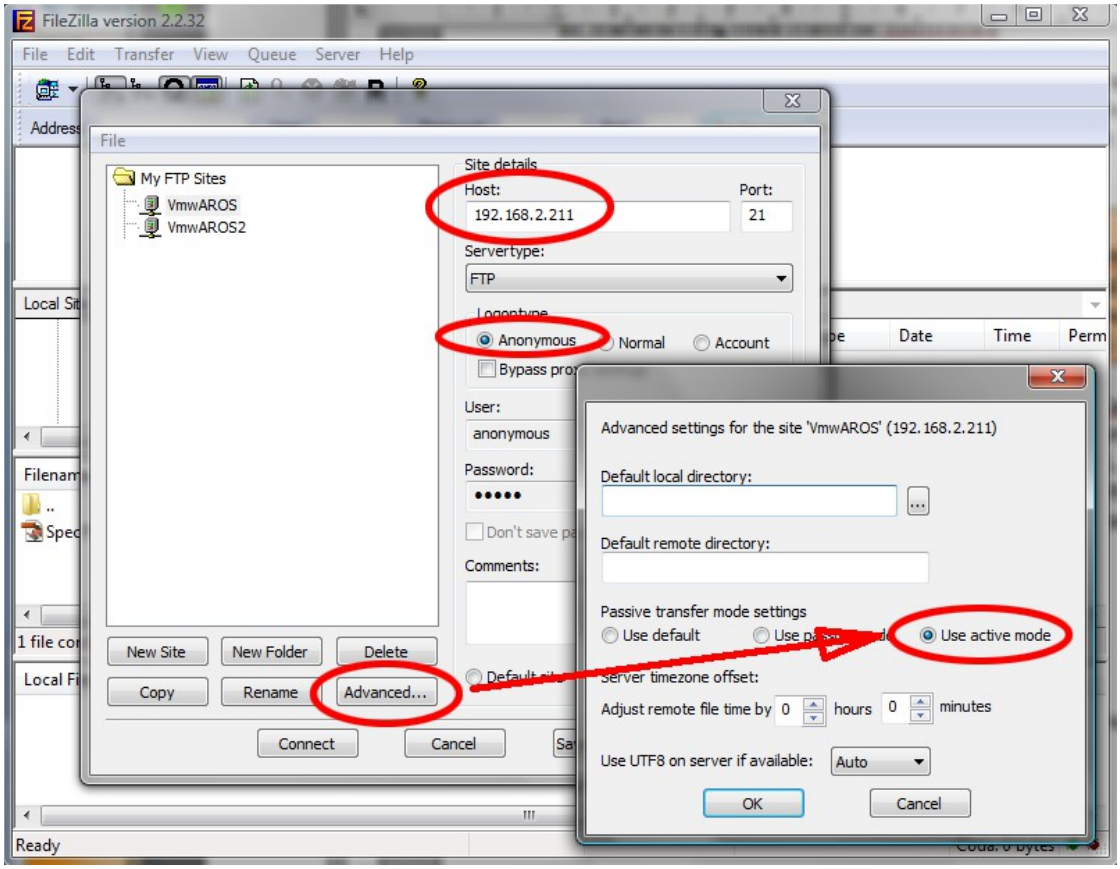
In order to activate file sharing with the host operating system (Icaros Desktop) and/or the other computers among the network (Icaros Desktop Live!) you need AROS networking manually configured, with a **fixed or automatic IP address** and a **supported network card**. Please read chapter 4.4 for details.

5.1.1 ...using YAFS FTP server

Once the network has been setup, you may luanch a thin file server called YAFS at startup. You can enable it from the “Networking” panel in **Prefs/Icaros Settings**. It will allow access to your MyWorkspace directory. You only need to configure a FTP client on any other computer connected to the network (or the host operating system for VMware users) and you're done. Please use these parameters:

FTP site: *your AROS machine IP address*
Login: anonymous
Password: *write anything here*
FTP type: active

Please notice the last parameter. It's important you set the FTP site as active, or you won't be able to access your AROS machine. Most sites and ftp client use default passive mode. Here's an example configuration of FileZilla:



5.1.2 ...sharing folders with Windows XP

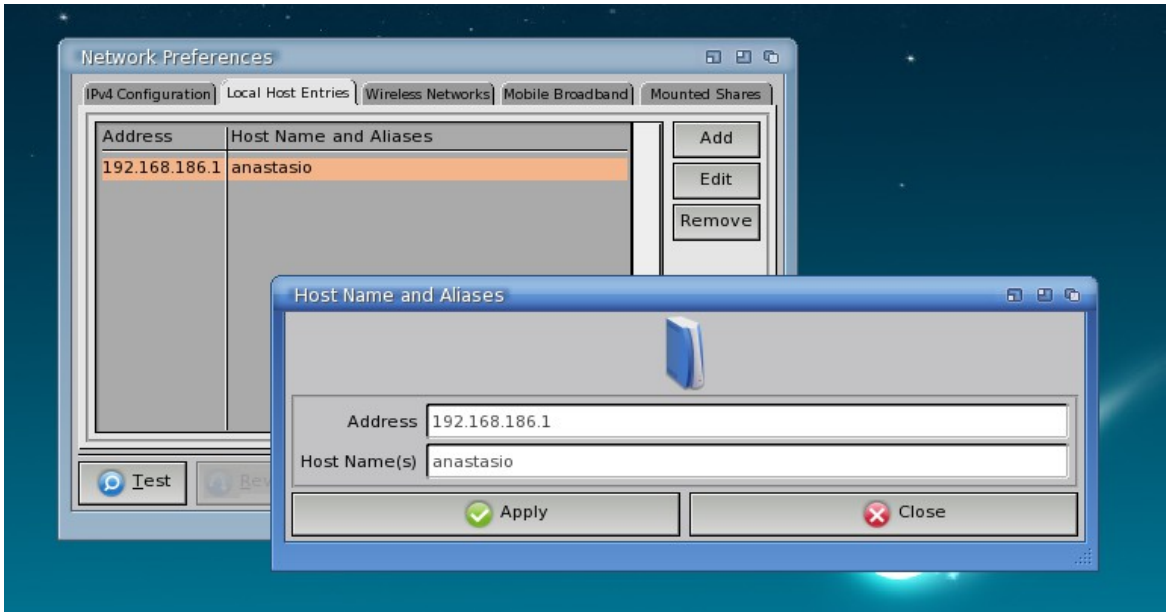
Another feature of Icaros Desktop is support to Windows XP SMB shares (or 'shared folders' as you like). Please notice **only Windows XP will work for now**: adding newer revisions of the protocol used by

Windows Vista, 7 and *Server* editions is planned, but for now it is not yet available. To enable Windows shares, you must know some details of the machines in the local network:

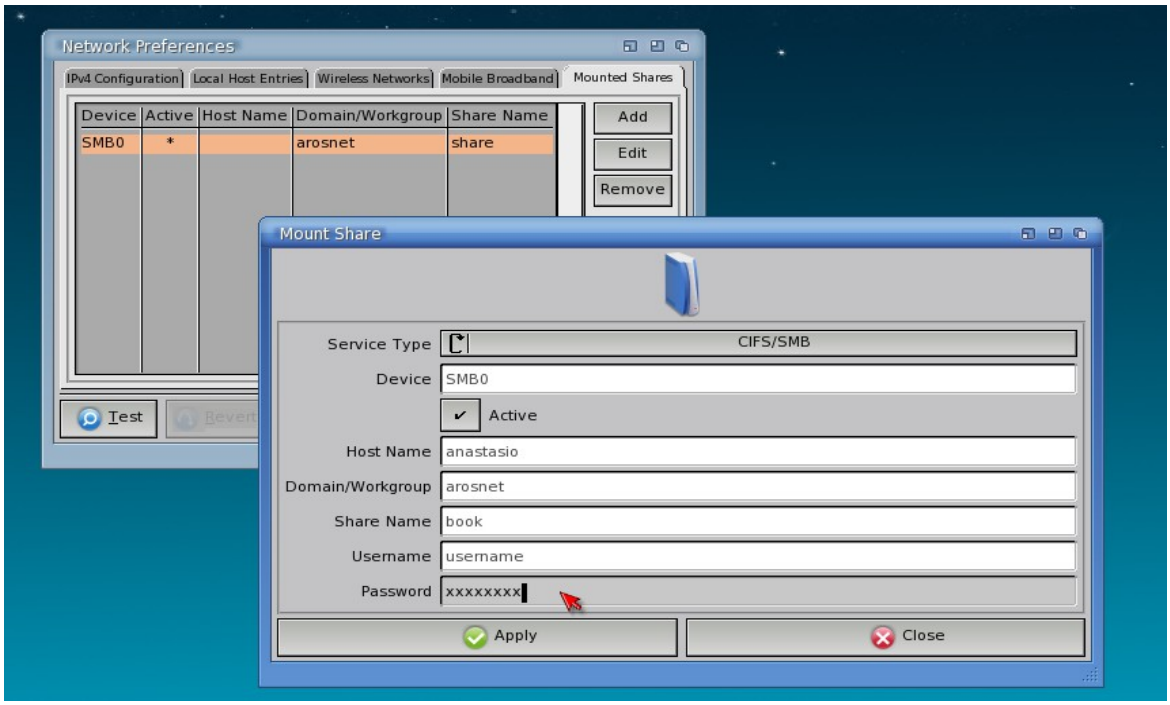
- IP address of the Windows host (get it using **ipconfig /all** command in a Windows shell)
- hostname of the Windows PC (right click on computer icon, Properties)
- share name(s) of the folder(s) you're sharing

Once you've got all these values, do the following steps on the AROS machine:

1. Open **Prefs/Network** and go to the **Local Host Entries** panel. Click on **Add**. Enter the IP **address** and the Windows **host name** in the right fields.



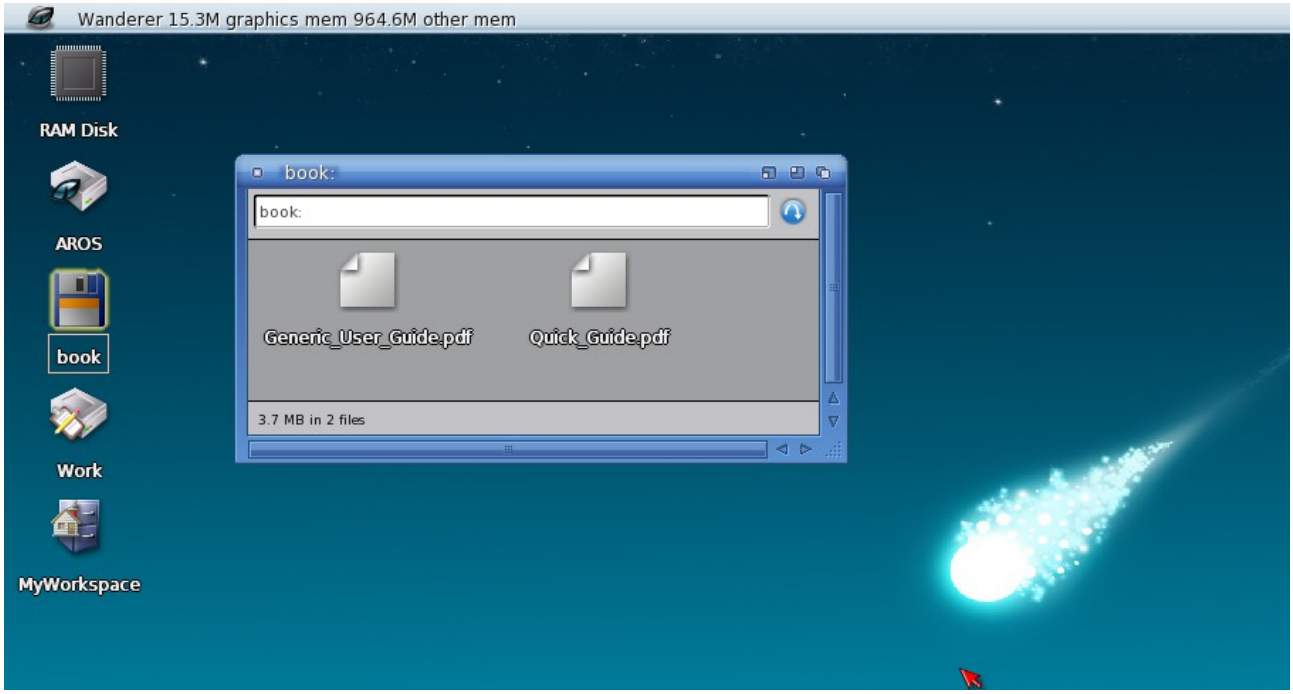
2. **Do not click on USE or SAVE for now.** Move on the **Mounted Shares panel** instead and click on **ADD.**



A new **SMB0** device will appear in the first column. Enter Windows **host name** (the same you've entered before), the windows **share name**, the **username** and **password** for your account on the Windows machine. For now, you can leave the **Domain/Workgroup** value to the default '*arosnet*' even if your Windows' workgroup is the default one ("WORKGROUP"). Click on **Apply.**

3. Save your network preferences. AROS will probably tell you it can't change network settings, and ask for a reboot. Reboot the machine.

4. At the next boot, your Windows share will appear with the default icon of a floppy disk. You can move files from the Windows host to the AROS one and vice-verse, if your user has write access to the share (look at Windows manuals to learn how to correctly manage shares).



To disable the share, open **Prefs/Network** again, go to the **Mounted shares** panel, select the offending share service and click on **Remove**. Reboot the machine.

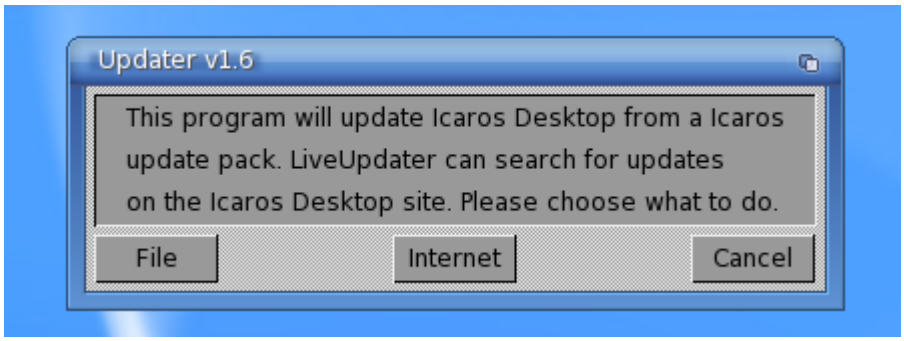
Booting slow?
Wrong settings for Windows shares can make boot times looooooooonger. If you get noticeable slowdowns booting Icaros when Windows shares are active, you can disable them cleaning the Active checkmark for the offending share service. This typically happens when a DHCP server manages the IP addresses of the local network, and Windows machines use dynamic IP settings for the local network. AROS can't manage them dynamically as well, so if you plan to use Windows shares on Icaros every day, consider switching *stable* machines to fixed IP settings.

What is my address?
In order to show your current IP address, you need to use the **ifconfig -a** command. Either press **rAros+W** or **rAros+E** and enter **ifconfig -a**. If you don't see any **eth0:** entry, it means your network is not completely up and running.

6. Keeping Icaros Desktop updated

(Icaros Desktop must be already installed on HD)

You can update your Icaros Desktop installation with update packs and patches. When you're ready, launch **LiveUpdater** from the **Icaros Desktop > My Software > System menu** of AmiStart (or in the *Tools/LUPD* drawer of Icaros Desktop system partition).


Updater v1.6
This program will update Icaros Desktop from a Icaros update pack. LiveUpdater can search for updates on the Icaros Desktop site. Please choose what to do.
File
Internet
Cancel

LiveUpdater window will appear. Choose your source for new files or press Cancel to abort. Be aware that your existing AROS files will be overwritten. So, if you aren't sure, before updating make a backup of your important data or, if you're using a virtual machine, create a *snapshot* of your current state: it will help you reverting to the old situation if something goes wrong.

6.0.1 File

Download a Icaros Update file and place it wherever you like on your system, then choose this option and locate it with the following file requester. It will be installed and your Icaros version will change accordingly.

6.0.2 Internet

LiveUpdater can download the latest Icaros update pack, check for its compatibility and then update your files. You need ArosTCP running and a reliable Internet connection.

No more CD-ROMs?
Older updating system based on ISOs and burned CD-ROMs is now officially deprecated. From now on, only update packs and patches will be compatible with LiveUpdater. This decision has been taken to prevent wrong installations by users. Nightly Builds are not compatible anymore, because many applications and files have been moved from their original locations to – in our opinion – better places. Installing file for a nightly over a Icaros installation would duplicate files and make the system behave unpredictably.

7. Running Amiga™ software inside Icaros Desktop

Icaros Desktop allows Amiga users to keep their habits. Or, at least, it gives a fair support to old Amiga 68K applications using the **Janus-Uae emulator**. This technology is called **AmiBridge**, which consists of a series of scripts that allow integrating workbench applications in the AROS system, and also running games and demos straight from their ADF files.

7.1 Running Amiga games and demos under Icaros Desktop

Old Amiga games and coding demos are often available in ADF floppy-image files. Starting from Icaros Desktop 1.4, **AmiBridge** adds direct support for them without even requiring original Amiga ROMs: by default, the AROS KickStart replacement ROM will be used instead. You can also decide to integrate Amiga Forever as explained in the following chapters: in this case, the options to use original Amiga™ ROMs instead of AROS ones will be shown. You can add ADF files to **AmigaApps** menu either running the ADD_ADF-GAME script from AmiStart's **My Software > AmigaApps** menu, or by double clicking on the icon of an ADF file. Notice: differently from AmigaOS programs, ADF files may sit anywhere on the hard drive. To keep things clean, however, we warmly suggest you to place ADF files in *extras:AmiBridge/adf*, which has been created for this purpose from day one.

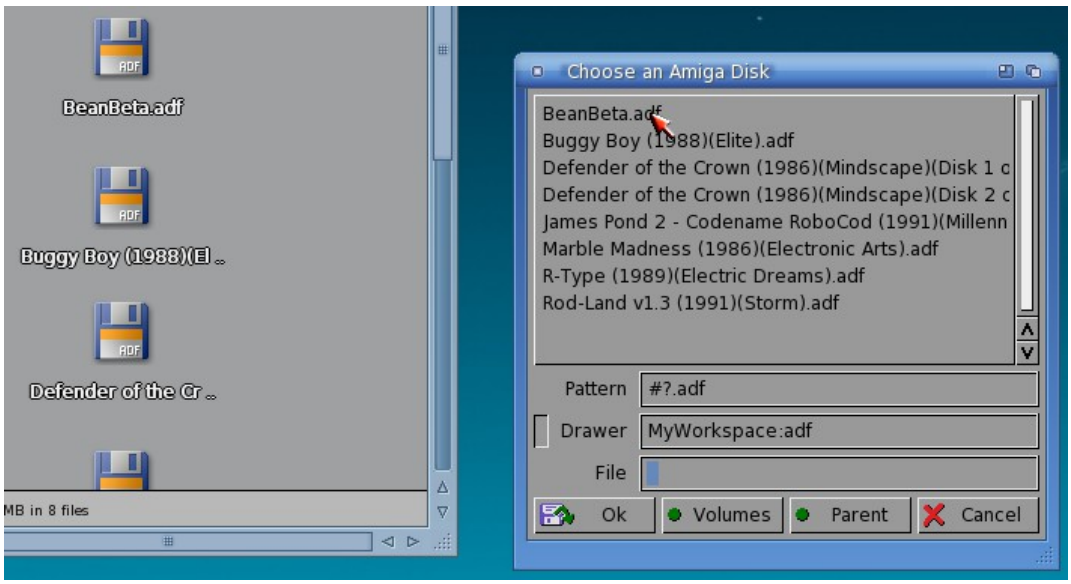
Every time you add a new ADF disk to AmiBridge, two files will be created in the *AmigaApps/Floppy* directory: a launch script, with a custom name you'll be prompted for, and a setting (.urc) one with the same name of the ADF file, but with the .urc extension added automatically. For instance, if you decide to add to AmiBridge the file “myamigadisk.adf”, and you enter “my game” as game/demo name, at the end of the procedure you'll spot two new files in AmigaApps:

- “**my game**” → the launch script for E-UAE
- “**myamigadisk.adf.urc**” → the E-UAE configuration file for that ADF disk

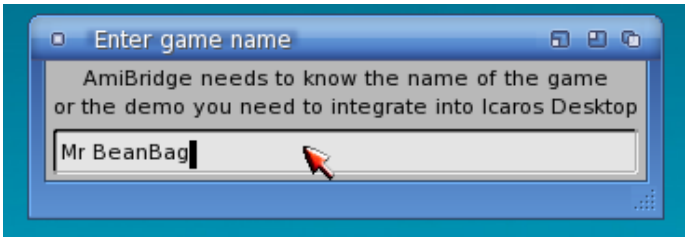
A different .urc file is used for every added ADF, so people can easily tweak emulator settings for that ADF file only.

7.1.1 Adding a single disk game/demo

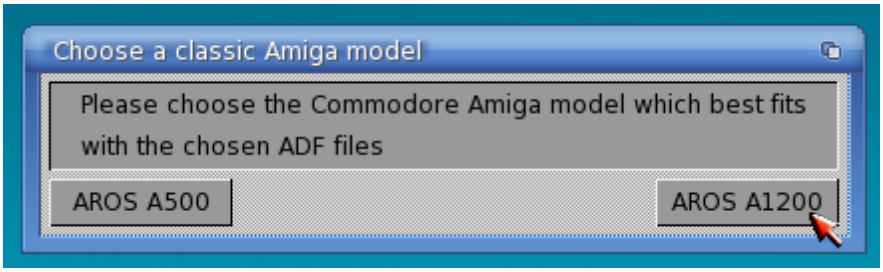
You can add ADF files to AmigaApps menu as well, either running the new **ADD_ADF-GAME** script from AmiStart's **My Software > AmigaApps** menu, or by double clicking on the icon of an ADF file. In the former case, a file requester will ask you to locate the ADF file. Let's add, for instance, Mr Beanbag, a funny platformer freshly released of classic AGA machines (A1200/A4000)...



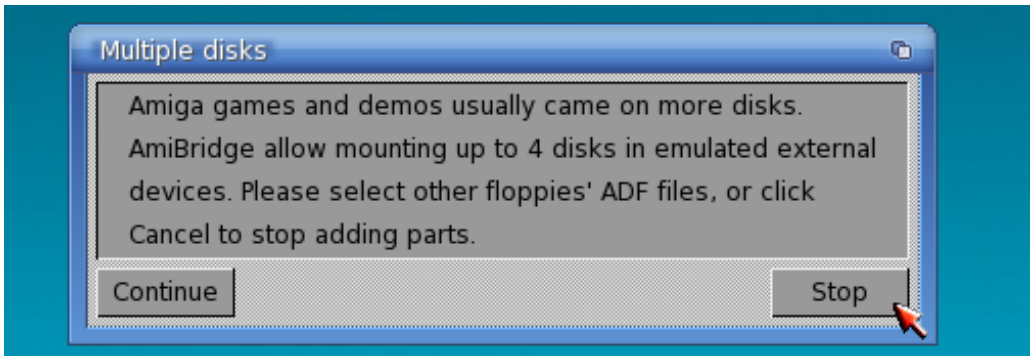
Choose the "*beanbeta.adf*" file. Enter the clean name of the game this way:


Enter game name
AmiBridge needs to know the name of the game
or the demo you need to integrate into Icaros Desktop
Mr BeanBag

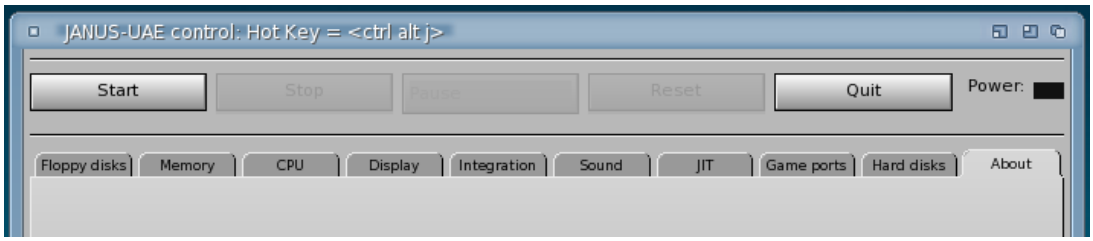
And now choose the right Amiga model to run it. Mr BeanBag runs best on an **Amiga 1200**. Since Icaros Desktop uses AROS KickStart ROMs instead of Amiga™ ones by default, old OCS/ECS machines are indicated by the **AROS A500** option, while AGA ones by **AROS A1200**. In this case, we must choose **AROS A1200**.


Choose a classic Amiga model
Please choose the Commodore Amiga model which best fits
with the chosen ADF files
AROS A500
AROS A1200

The next requester will warn you that many Amiga games and demos were distributed on more than a single floppy disk. Mr BeanBag, however, comes only on a single disk. For this reason, click on **STOP**.


Multiple disks
Amiga games and demos usually came on more disks.
AmiBridge allow mounting up to 4 disks in emulated external
devices. Please select other floppies' ADF files, or click
Cancel to stop adding parts.
Continue
Stop

Once you have done this, J-UAE will run. Just click on START to play the game:



You can fine tune the configuration of the emulated computer (for instance, to change audio or control settings, enable or disable full-screen and so on) using the options in various Janus-UAE GUI panels. Don't forget to click on Save to keep your changes permanent. If you need to turn back to the Janus GUI, the shortcut is **Ctrl+Alt+J**.

Lost in full screen?
When the full-screen option of Janus-UAE is active, you can switch back to Wanderer's screen using the **lAros+M** or **lAros+Tab** shortcuts, then you can press Ctrl+Alt+J to recall J-UAE GUI.

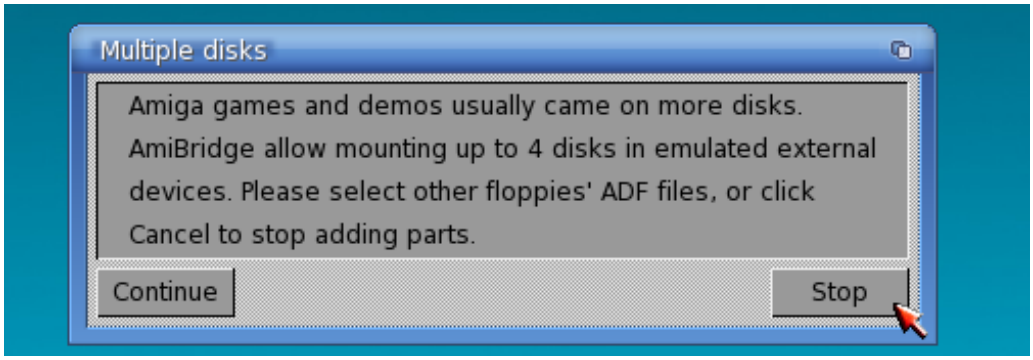
And now... enjoy your game!

7.1.2 Adding a multiple disks game/demo

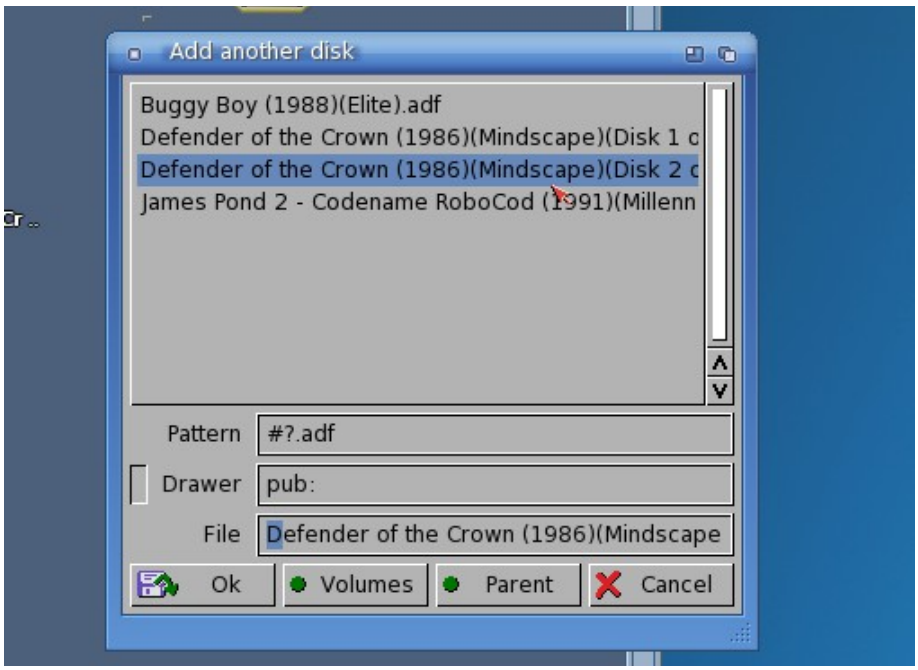
You can use multiple ADF files if necessary, just start adding a game using the **first disk** (as explained before), either running the new **ADD_ADF-GAME** script from AmiStart's **My Software > AmigaApps** menu, or by double clicking on the icon of the **first disk**'s ADF file. For instance, if "Defender of the Crown" came on these two ADF files:

- "*Defender-of-the-crown_disk1of2.adf*"
- "*Defender-of-the-crown_disk2of2.adf*"

Please add the first one following the same steps you learned in chapter 7.5.1. However, this time, when looking at this requester:

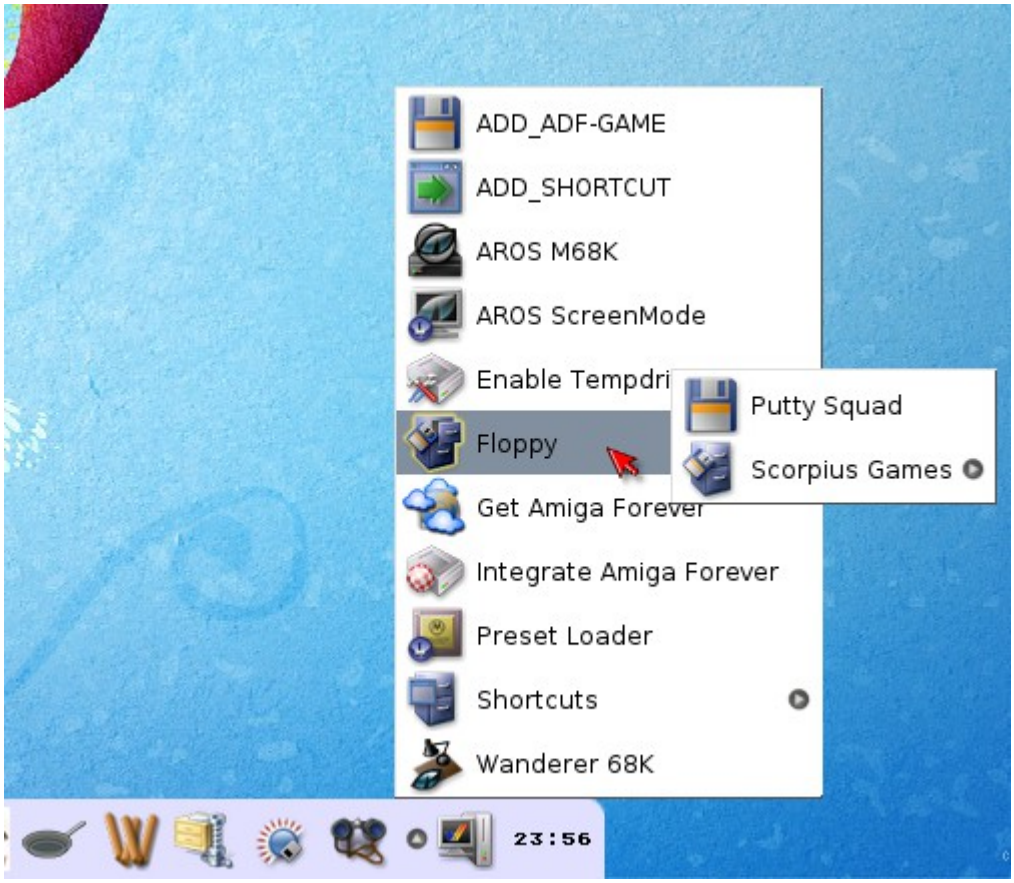

Multiple disks
Amiga games and demos usually came on more disks.
AmiBridge allow mounting up to 4 disks in emulated external
devices. Please select other floppies' ADF files, or click
Cancel to stop adding parts.
Continue
Stop

Click on **Continue** instead. You will be prompted for the second (third and fourth) drive until you click on Cancel. But for now, enter the second disk's ADF. Then press **Cancel** next time. **AmiBridge supports up to 4 disks**. Games coming on more than 4 disks should be installed somehow on a hard drive file to load. You may also use Janus-UAE GUI to switch disks.



7.1.3 Running imported games

Once you have “imported” a game or a demo with this procedure, you can easily start it with the icon that AmiBridge just added in the Folppy subdirectory, introduced with Icaros Desktop 2.0.

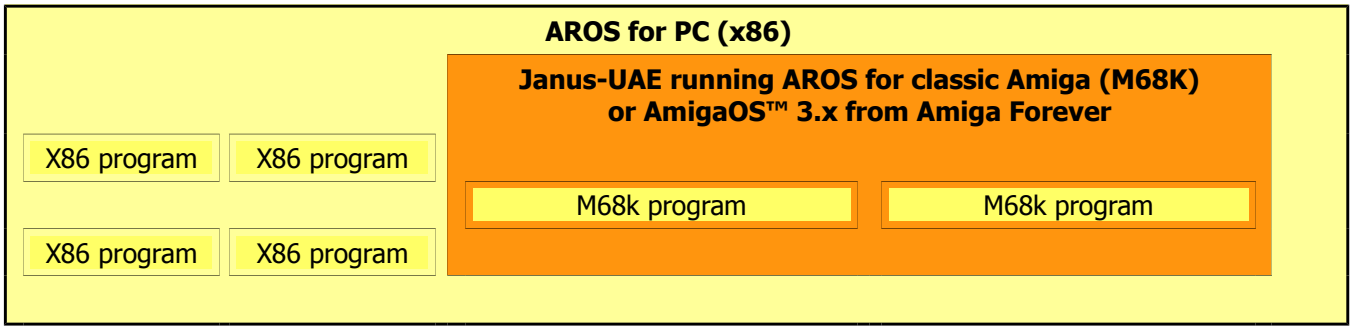


Icaros Desktop already provides some free Amiga games, including a real gem like Putty Squad.

8. Running classic M68K applications

8.1 AmiBridge's M68K environment

Starting from version 1.4.4, the AmiBridge system had been extended to use the M68K port of AROS to run old AmigaOS applications. This way, Janus-UAE can run old software without the need of original Amiga™ boot ROM (KickStart) and operating system (AmigaOS 2.x or 3.x). Please notice AROS M68K is still under heavy development, so compatibility may not be perfect yet. But it's still improving over time.



AmiBridge aims to be as much transparent to the user as it can, hiding all the necessary technology to allow compatibility with old M68K software. Version 1.5 furtherly extended this concept, creating a common environment for both AROS 68K and AmigaOS 3.X. Users of former versions of Icaros may have noticed differences between virtual drives mounted by the two systems, now they are exactly the same. AROS 68K and AmigaOS 3.X needed a completely different setup, now it's very similar, and so on. The new version of AmiBridge gives the user a far more comfortable way to run his/her classic Amiga™ applications on Icaros Desktop.

8.1.1 Filesystem

Both AROS 68K and AmigaOS 3.X (once integrated) will see these virtual drives:

AROS: → AROS M68K system files, located at host's sys:System/AmiBridge/AROS68K
Icaros: → the host system drive, readable and writable
Host RAM: → the host RAM: device, read only
MyWorkspace: → host's MyWorkspace
Work: → partition for Amiga software, located at host's extras:68K/Work

There are, also, some virtual devices mounted in form of ASSIGNs:

Downloads: → MyWorkspace subdirectory
Pictures: → MyWorkspace subdirectory
Videos: → MyWorkspace subdirectory
Documents: → MyWorkspace subdirectory

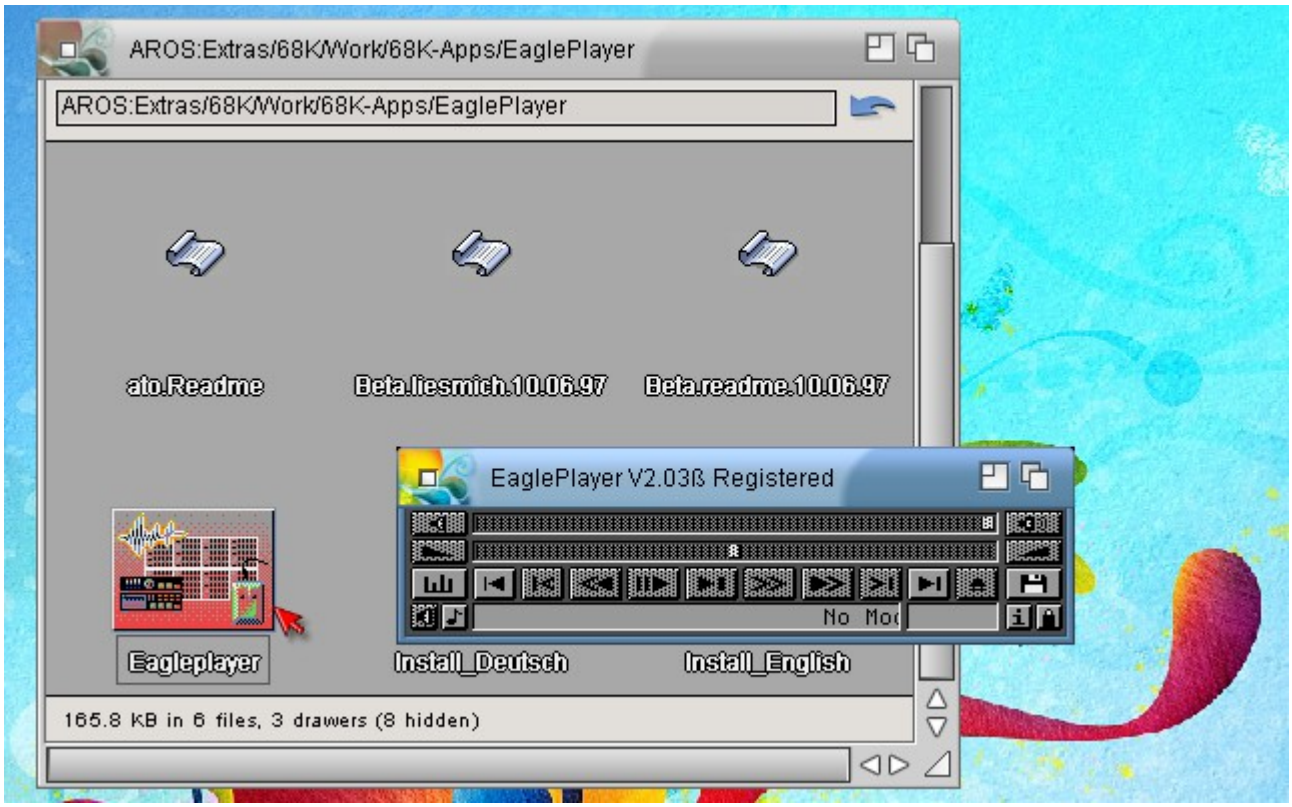
Please notice there are some little differences with the past. AmiBridge system files (emulator + AROS 68K) have been moved from Extras: to SYS:System, while 68K's Work partition has been relocated to Extras:68K. This is due to our newer drawers layout, and allows people to avoid installation of Icaros' 68K programs if they do not want them at all. If you wish to take advantage of some great Amiga™ applications as well, be sure to install the 68K package with Icaros Desktop. While MyWorkspace will be seen as a simple Assign by host applications, guest ones will access it like a whole drive.

8.1.2 Running applications: required steps

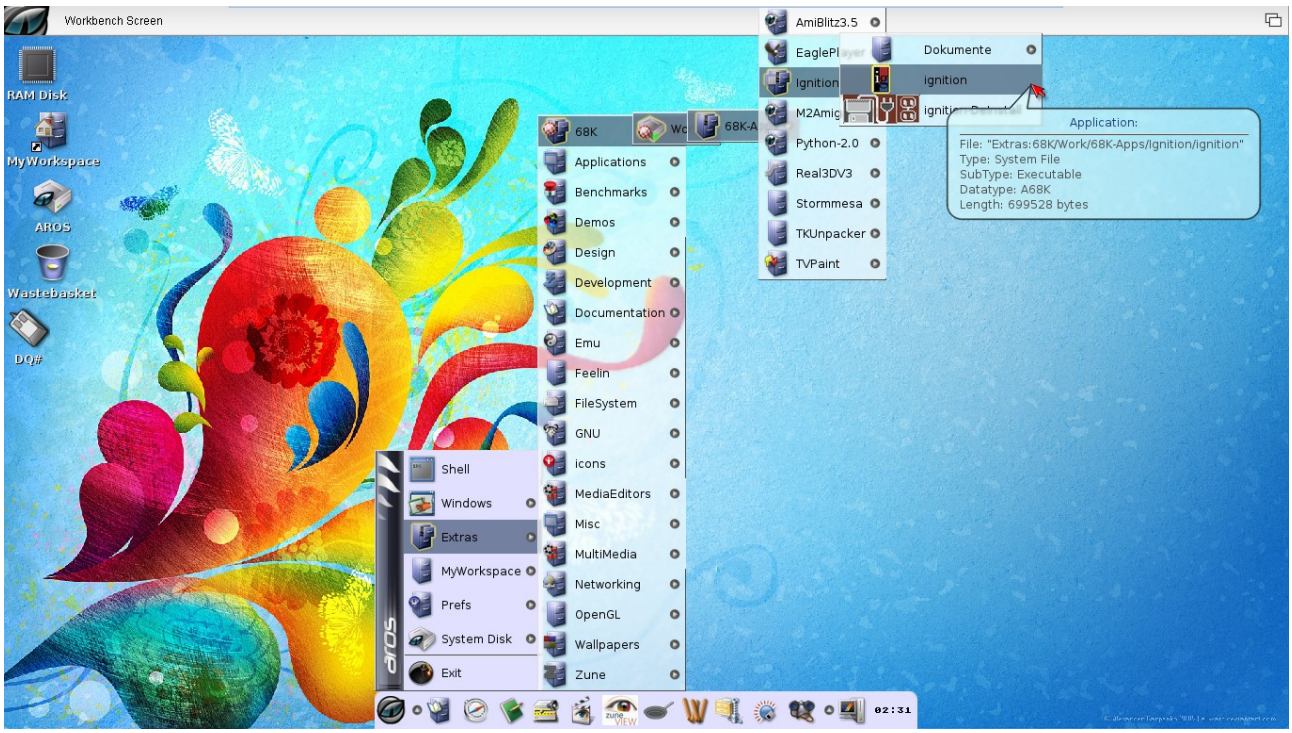
So, in a nutshell, what should you do to run a old application? It's quite easy, once you understand what to do and why. Essentially, you have to

1) run the emulation environment, calling either the 'AROS M68K' script (whenever you want) or the 'Workbench' one (once you have integrated Amiga Forever)

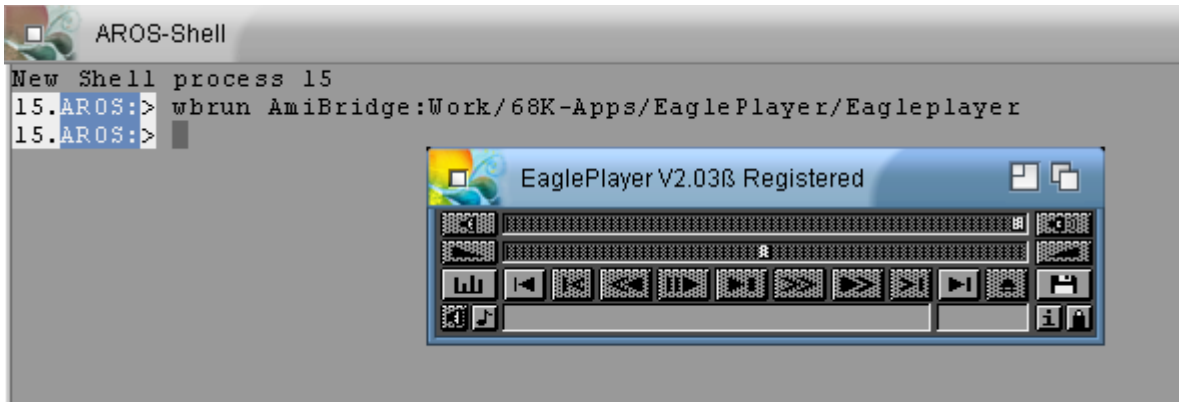
2) run an Amiga application, starting with either with Wanderer, with AmiStart or with the wbrun command. With Magellan, you'll have to right click on the icon and select the Wbrun option in the contextual menu



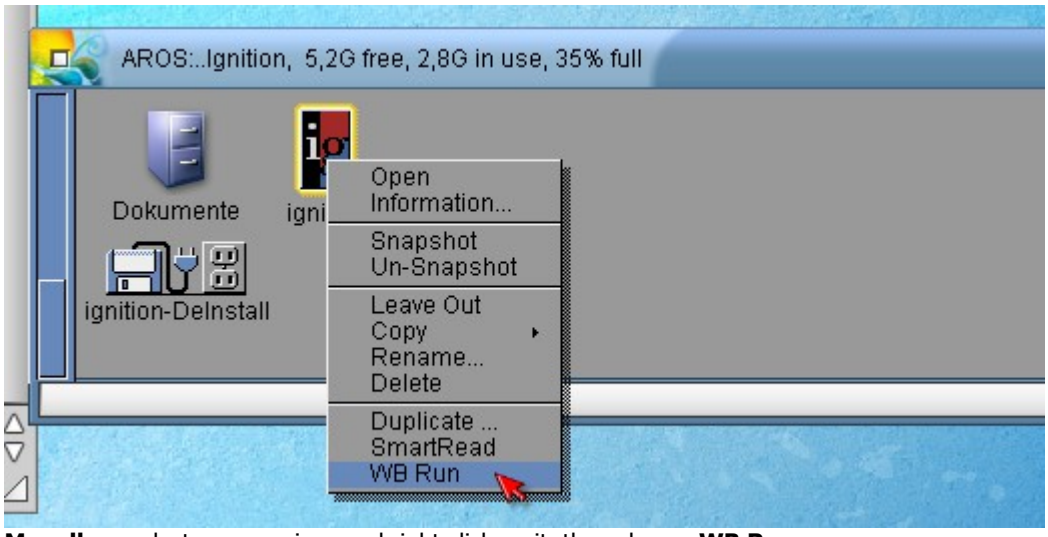
Wanderer: double click with left button



AmiStart: run the application from **extras** → **68K** → **Work** and subdirectories



shell: use the **wbrun** command with application path, starting from **AmiBridge:**



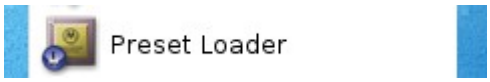
Magellan: select program icon and right click on it, then choose **WB Run**

REMEMBER!
68K applications won't run if the emulation environment is not ready!

3) if you're running the emulation environment on a separate screen, move to that screen with lAROS+Tab or lAROS+M.

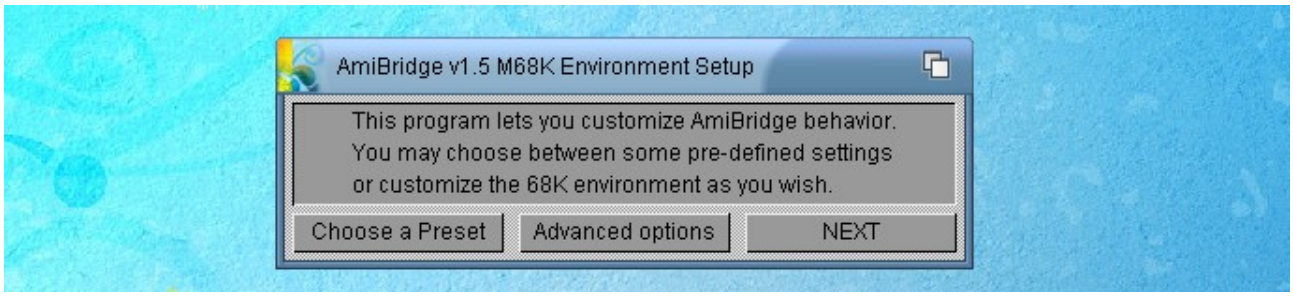
8.2 Setting up the 68K environment

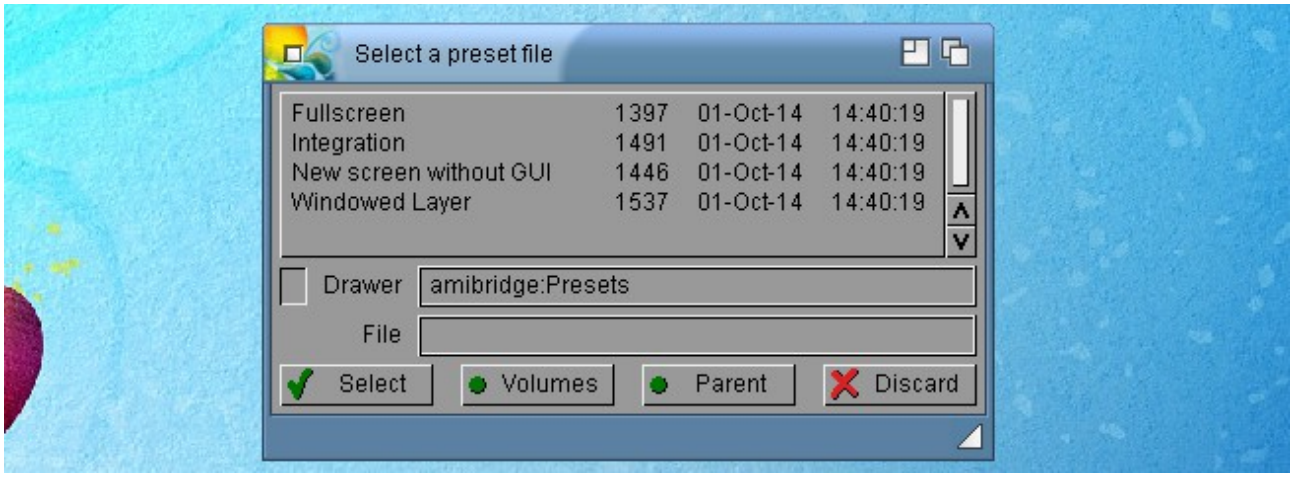
Icaros Desktop 2.0 eliminated the preferences script for AmiBridge introduced in /Prefs long ago. You may decide to use one of new AmiBridge presets, like integration, full screen Wanderer/Workbench, compatibility layer in a new screen and emulation-in-a-window at a fixed resolution through the Preset Loader script in AmiBridge, or fine-tune AmiBridge's M68K environment with the Icaros Settings tool in /Prefs.



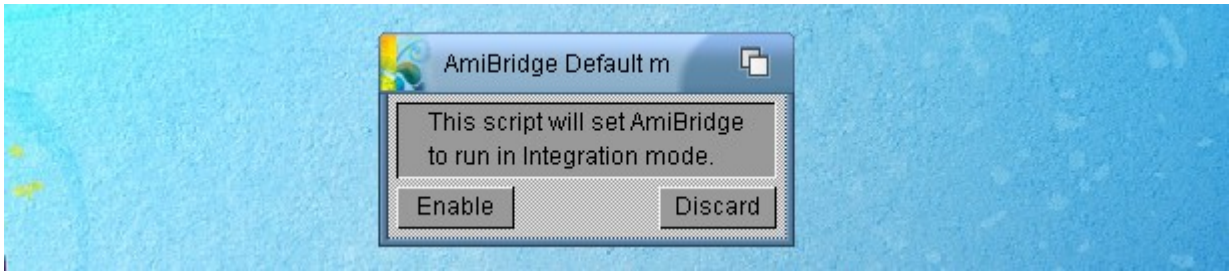
8.2.1 Presets

AmiBridge can behave in many ways. Icaros Desktop comes with a few presets, covering the most common user needs. Presets are meant to be expandable, so new presets may be available in the future and users can easily learn how to create new presets as well. Anyway, when running **Preset Loader**, you will be prompted with the list of available ones:

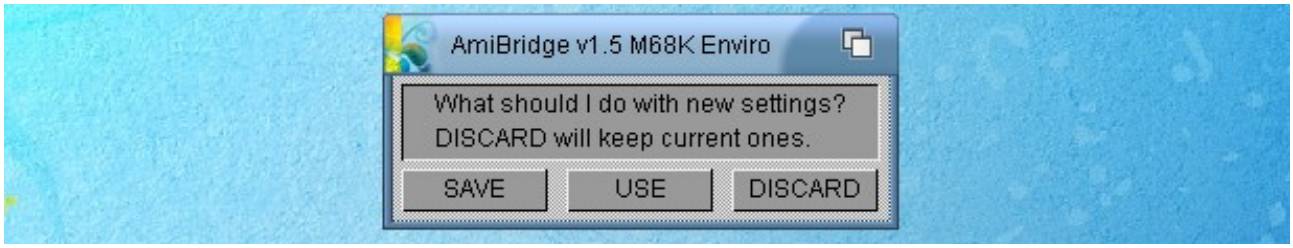

AmiBridge v1.5 M68K Environment Setup
This program lets you customize AmiBridge behavior.
You may choose between some pre-defined settings
or customize the 68K environment as you wish.
Choose a Preset
Advanced options
NEXT



Every preset comes with a short description of its settings, so you can decide either to Enable it or not.



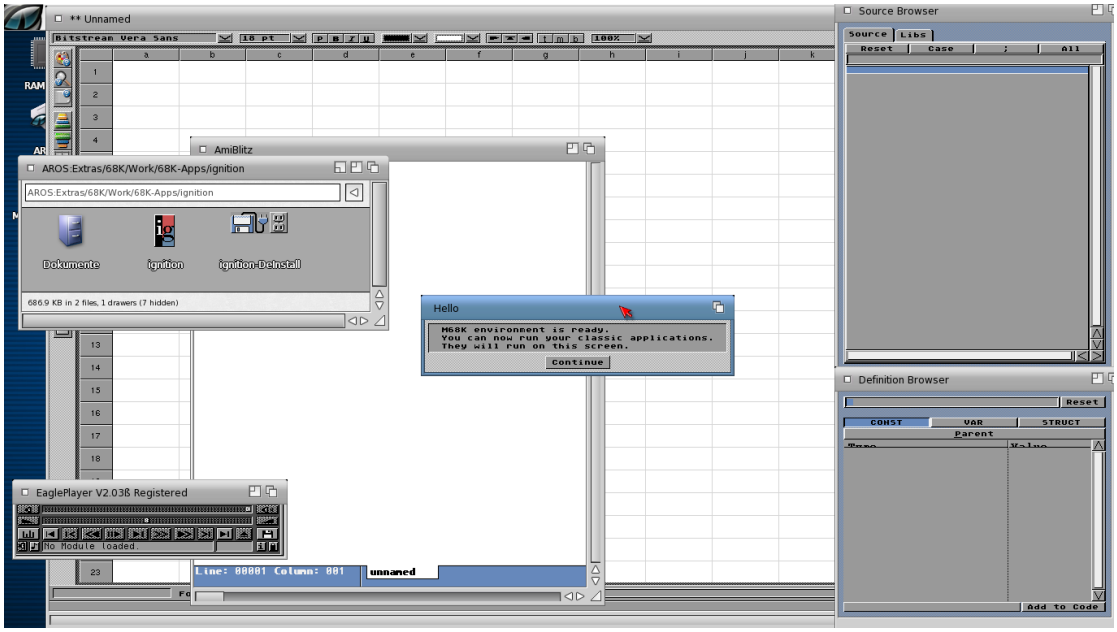
Once done, click **Save** to make the new preset your new behavior for AmiBridge.



Warning!
Presets are shell script that may modify Janus-UAE settings. Once enabled, they will be permanent even if you choose just the USE option afterwards. You can disable them using Janus GUI or choosing a different Preset which does a completely different thing. **Be careful about 3rd party Presets, they may harm your AROS installation if badly written.**

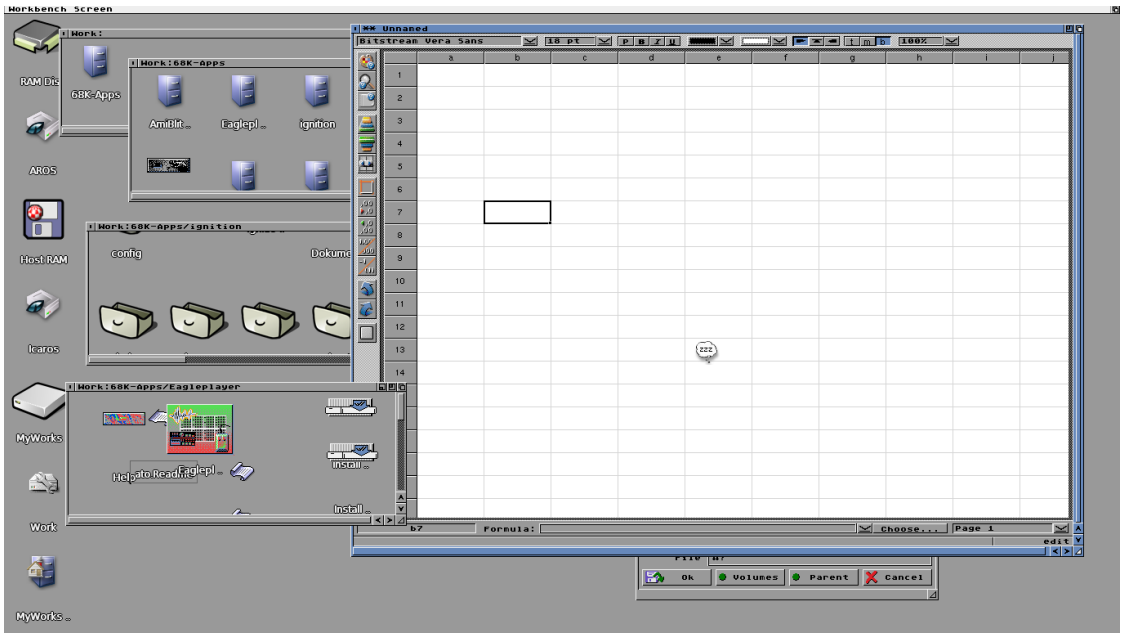
Integration

AmiBridge will try to integrate classic applications as much as it can. Classic applications will appear on the screen as AROS x86 windows, and to make them look as much integrated as they can, some host's preferences like (global settings for) Zune. Fonts, Pointer, locale, icontrol and input will be copied from host to guest at startup. Fonts: assign on the guest is extended to host fonts directory, so you won't have to maintain two different fonts drawer for your applications. Just place needed fonts in the x86 AROS drawer. **Coherency mode, anyway, will work only if x86 and 68K screen resolutions are the same**.



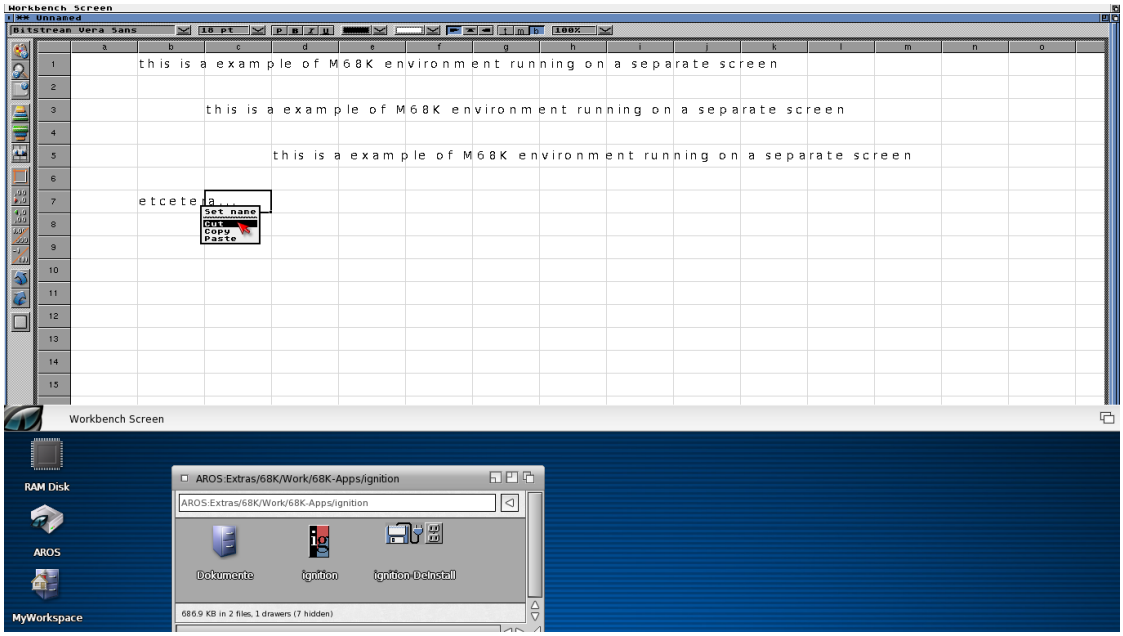
Fullscreen: a full 68K experience on a new screen

With this Preset, the M68K environment will be opened in a new screen, keeping the OS GUI active. This means that you may have a full 68K Wanderer or Amiga™ Workbench on top of AROS x86 (classic emulation). Fullscreen mode is generally faster than default integration, especially for AROS M68K, and can be preferable because it doesn't suffer of menu issues and other integration glitches.



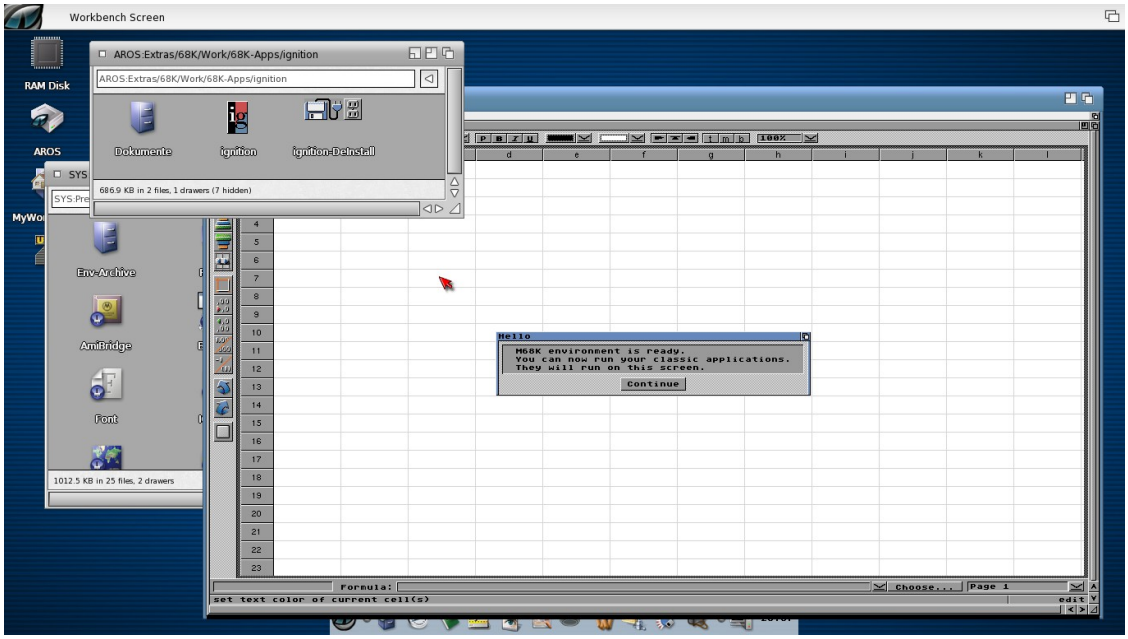
New screen without GUI: a clean emulation screen for your classic apps

This preset opens AmiBridge as a clean "68K screen" without Wanderer or Workbench. You can start classic apps with their icons straight from AROS x86, but they will be opened on this screen. Please notice that Janus screens can't be dragged like regular ones, so you'll have to reach the top right corner of the screen to move between screens or use lAros+M or +Tab keyboard shortcuts. You can, however, drag the x86 AROS screen up and down revealing the 68K one behind:



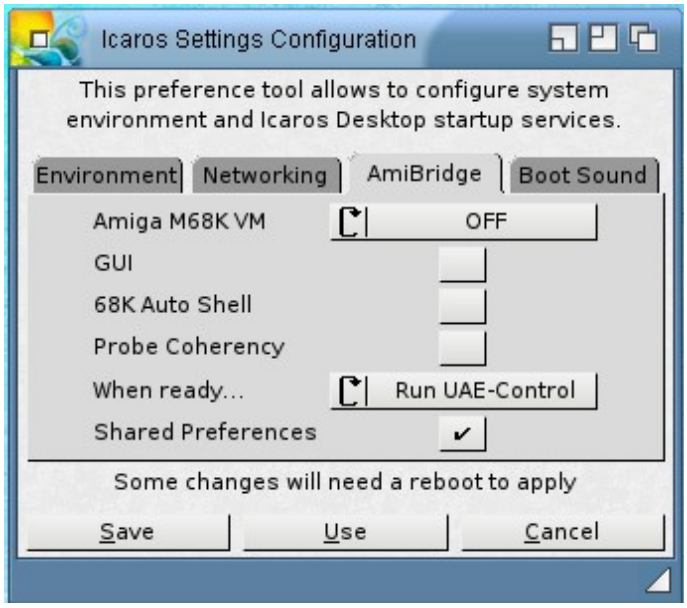
Windowed layer: a 68K window on your Wanderer screen

Conceptually similar to the former one, this preset opens a 68K screen with or without GUI (it's generally disabled by default, but you may change this behavior using advanced options). You can run classic applications with host's Wanderer, and they will all appear in the single AmiBridge window.



8.2.2 Advanced Options

With default preset, AmiBridge will normally disable 68K Wanderer or Workbench, share some settings between host (x86) environment and guest (M68K) one, and so on. But you may change something with advanced options. To access them, you need to run Icaros Settings from the Prefs drawer, and move to AmiBridge panel:



Once done with your settings, click on the **Save** button to make them permanent, or on **Use** to try them just for this AROS session. You won't need a reboot to enable them.

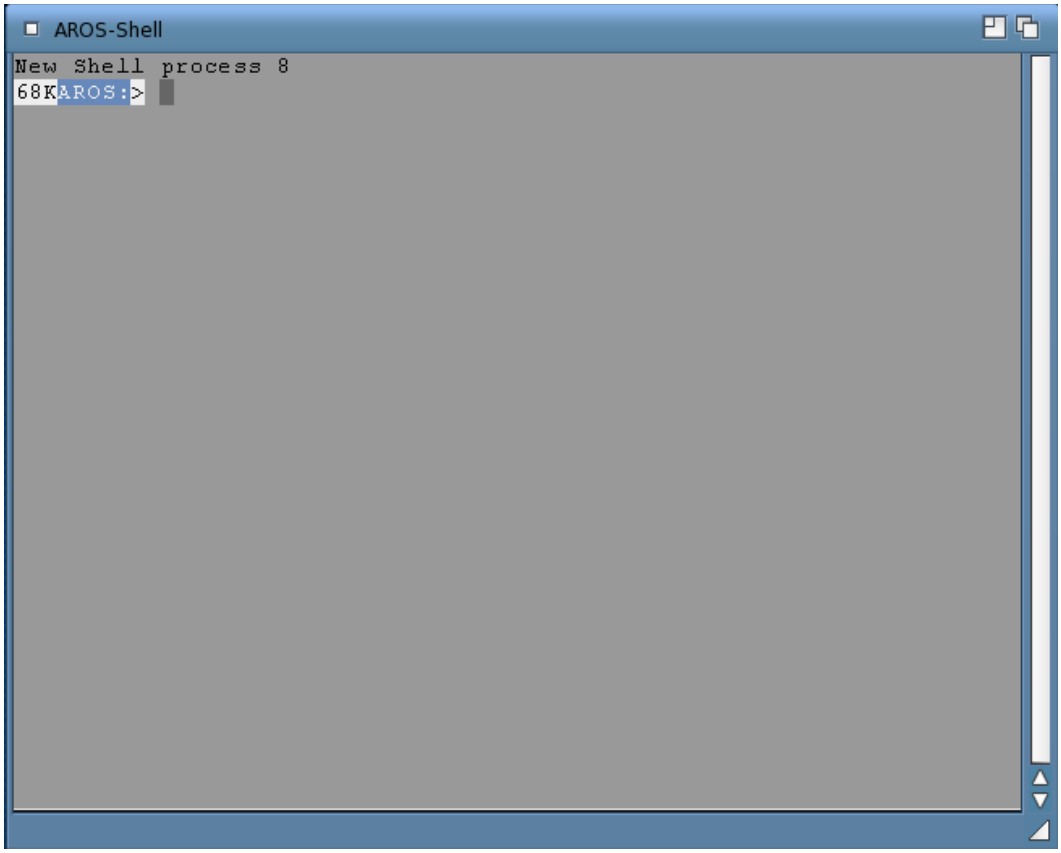
GUI

AmiBridge will normally disable 68K Wanderer or Workbench. In fact, you are supposed not to use them at all. Just move with x86 Wanderer to your 68K program location, and run it as usual: it should appear on the screen few seconds later. You may even decide to drop its icon on AmiStart, it will run from there as well. There are occasions, however, when accessing to the original GUI/File Manager can be useful or necessary. To re-enable Wanderer or Workbench, click on the Workbench button on the left. You will be

prompted either to enable or disable it. Remember that the M68K environment must be powered off before making changes to this setting.

68K Auto Shell

For your convenience, AmiBridge can run a shell from the guest environment. It may be useful to run command line programs or to perform installations, or other 68K tasks, without the need of loading the whole GUI of the guest system.



When using the AROS M68K shell, you can always recognize it by its different prompt: `68KAROS:>`.

Probe Coherency

AmiBridge will try running your applications in coherency mode as much as it can. But you may change this behavior by clicking on the **Probe Coherency** button. After disabling it, AmiBridge will stop re-enabling coherency mode automatically when you change resolution using the proper scripts, or when you change this setting in Janus GUI and then you reboot the system.

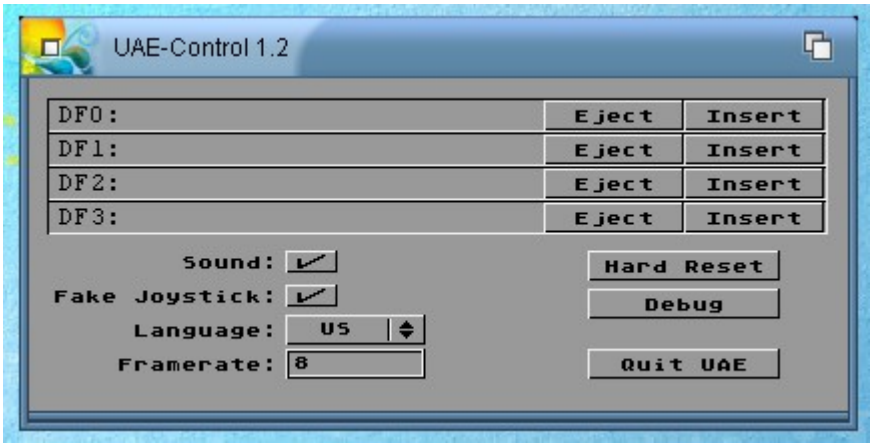
When ready...

Default way to warn user about the avilability of 68K environment is a message appearing on the screen:

If you usally run AmiBridge as a service, you may prefer not to see this message every time you reboot the system. The Warning message button lets you decide wether showing or hiding it. Please notice with Icaros Desktop 2.0 a new “Quit Emulation” button has been added to the welcome message. It will help you quitting the emulation layer immediately if you have ran it by mistake, but it will become much more handy when you'll use a shortcut to run a single application through a new Icaros Deskop 2.0 feature: shortcuts. We will see them later.

With this option, you may also run UAE-Control instead:

UAE-Control is a M68K program that allows partial managing of the UAE emulator from the guest side of emulation environment. You can use it to stop emulation, reset it, or mount ADF files in the virtual floppy disk drives (**DF0, DF1 only on AROS; DF0 to DF3 on AmigaOS**)



The **Insert** buttons will ask you the path for an ADF file.

Click on the **Select** button to open a file requester, or manually enter path and file name in the left text field. Once you're ready, press Enter to confirm selection. Please beware of the fact that **your path must be a valid one from the host side, not the guest one**. In a nutshell, if your ADF files are in AROS X86's DH1:Temp directory, you should enter this path in the form DH1:Temp/my_adf_file.adf. **For your convenience, Icaros Desktop provides** *MyWorkspace:* **and other shared virtual volumes, please use them!** Save your ADF files, for instance, in the Downloads:ADF drawer, and you'll be able to mount them from Downloads:ADF with UAE-Control too! Shared virtual volumes, between host and guest, are:

MyWorkspace: → **MyWorkspace special drawer**
Downloads: → **MyWorkspace subdirectory**
Pictures: → **MyWorkspace subdirectory**
Videos: → **MyWorkspace subdirectory**
Documents: → **MyWorkspace subdirectory**

That's why, in Icaros Desktop, opening the file requester with the Select button will send you straight to MyWorkspace.

Other UAE-Control buttons are:

Eject → unmounts ADF image file from associated virtual DF unit
Hard Reset → resets the emulation environment only, making it boot again
Debug → starts UAE debugger, freezing the emulation layer
Quit UAE → shuts Janus-UAE down, exiting from AmiBridge to AROS desktop

Alternative ways
You can easily make AmiBridge running the shell instead of the warning message every time it boots the guest operating system: just enable the shell and disable the warning message. It had been the default behavior in Icaros Desktop v1.4.5.

Shared preferences

When using AROS 68K, you can share some settings with the host operating system. Technically speaking, these settings will not be really *shared* between x86 and 68k, but they will be *imported* by the guest when the 68K environment will startup: if you decide to change something when AmiBridge is running, for instance, the new settings in the x86 environment will not be reflected into the 68K one, **nor** the 68K preferences will affect in any way the x86 ones. Every time the M68K environment will be brought up, 68K preferences will be overwritten. If you wish to avoid that, and keep two different profiles for x86 and 68k preferences, you can click the Shared prefs key. It will let you enable or disable this feature.

coherency mode: these are x86 and 68K locale prefs. Can you spot the differences?

Only AROS makes it possible
Please remember shared settings are possible only with AROS M68K. AmigaOS 3.X preference files are different and not compatible, so you'll have to manually configure your AmigaOS™ installation to match the x86 AROS settings as much as possible. Obviously if you're interested in doing so.

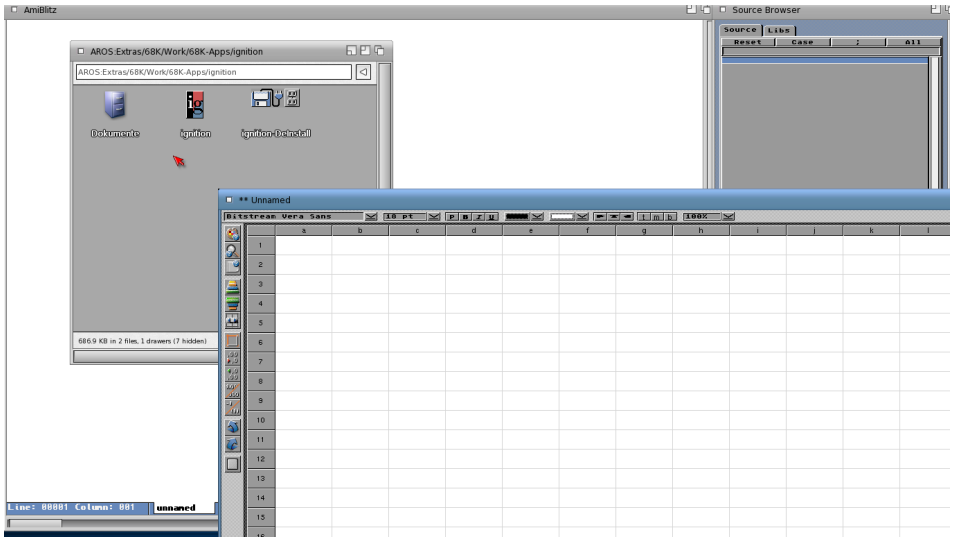
8.3 Running AROS 68K

Starting with Icaros 1.5, AmiBridge doesn't need manual configuration of screen mode anymore. Oliver Brunner (Janus-UAE coder) provided a nice new tool which chooses the right resolution when AROS M68K starts up. Once again, this only works with AROS M68K. From the user point of view, it's like M68K guest windows are running in the X86 host desktop space. If you're familiar with VMware or VirtualBox product, just think about their Unity and Integration modes. The cliboard will be shared between host and guest, while parts of host filesystem will be accessible also from the guest. So, running the 68K environment with AROS is just matter of launching this script from AmiStart's AmiBridge menu:

← **This script will launch AROS M68K environment**

Once the environment has loaded, you're ready to run your classic applications. Some are ready to run in

extras:68K/Work/68K-Apps drawer.

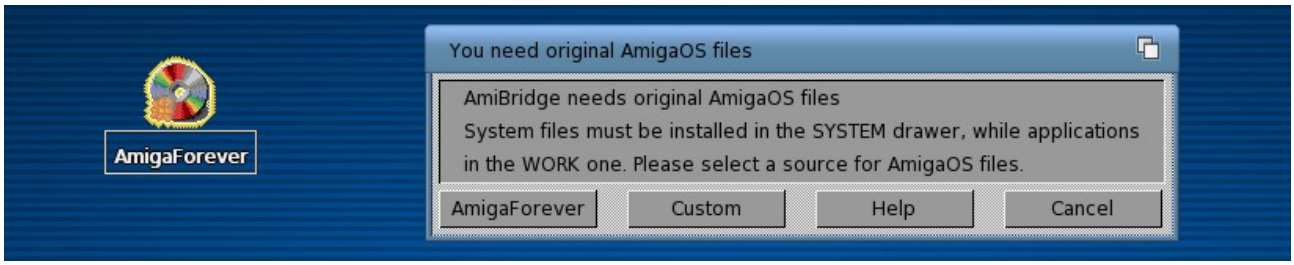


8.4 Running AmigaOS™ 3.X inside AmiBridge

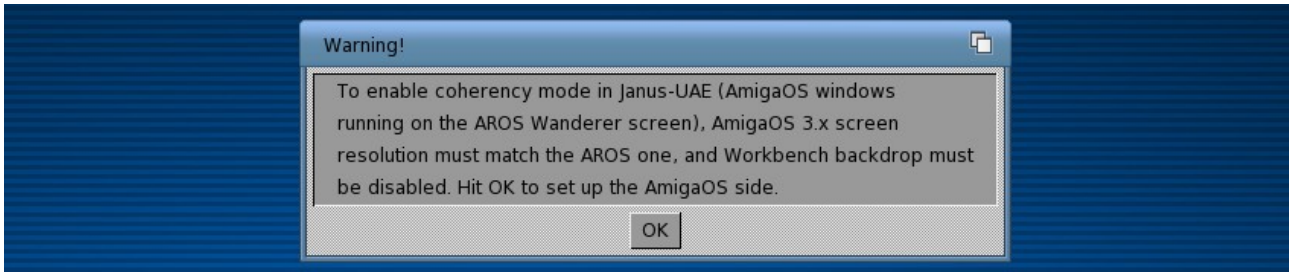
If AROS M68K isn't just enough to fit your needs, and you wish to take advantage of “the real Amiga operating system” to run your legacy apps, you can still integrate Amiga Forever's system files and ROM into Icaros Desktop. The way is exactly the same as before. There are, however, some little differences from the past: user can now activate/disable auto-shell, Workbench and welcome message with AmigaOS as well and, most important, they're not supposed to manually disable backdrop anymore.

8.4.1 Integrating AmigaOS™ 3.X

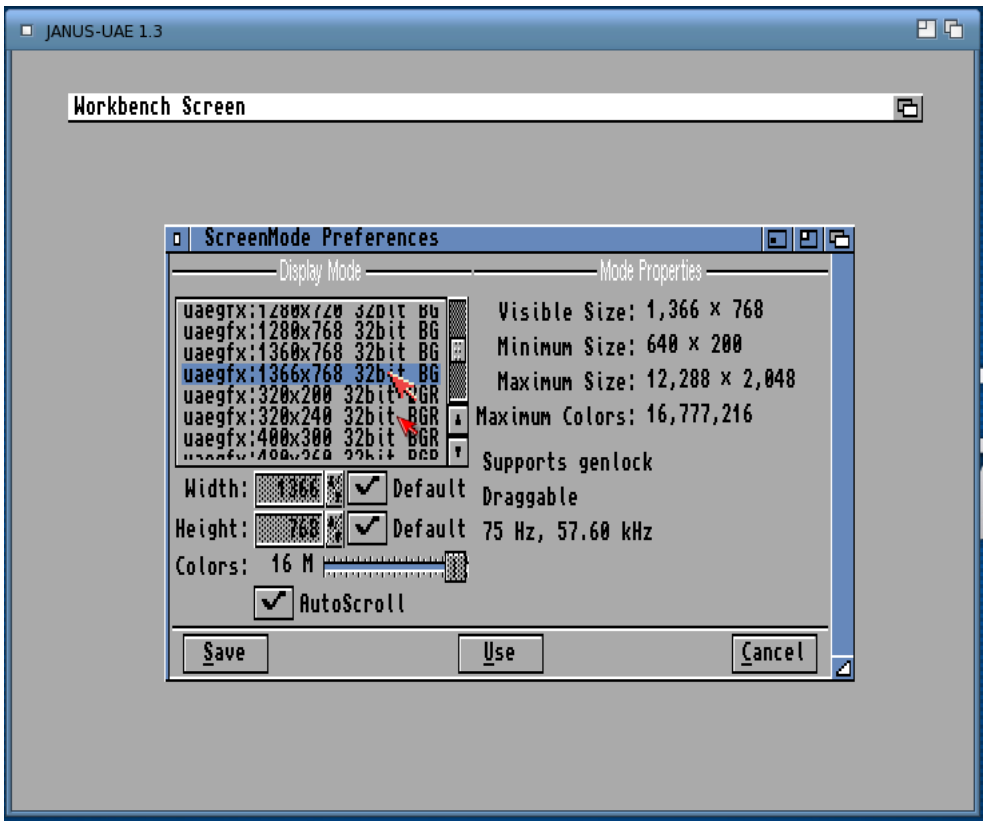
If you're using Amiga Forever 2006, 2008 or 2009, all needed files will be automatically copied from the AF CD-ROM in the right position. It is possible that older/newer releases of Amiga Forever behave differently. In this case, you only need to copy the right files in the right drawers manually. Don't forget to keep the “View” option in Wanderer set to “All files”. Look in the AmigaApp drawer and launch the **Setup-Amibridge** icon. If you have Amiga Forever, mount its CD and press **AmigaForever**.


AmigaForever
You need original AmigaOS files
AmiBridge needs original AmigaOS files
System files must be installed in the SYSTEM drawer, while applications in the WORK one. Please select a source for AmigaOS files.
AmigaForever
Custom
Help
Cancel

This will copy all needed rom, system and application files automatically. It will also add the necessary lines to the users AmigaOS Startup files to enable seamless integration of Amiga applications.


Warning!
To enable coherency mode in Janus-UAE (AmigaOS windows running on the AROS Wanderer screen), AmigaOS 3.x screen resolution must match the AROS one, and Workbench backdrop must be disabled. Hit OK to set up the AmigaOS side.
OK

Click on OK, the **Amiga Workbench** and the **ScreenMode** preference panel will load automatically. **You must choose the exact same resolution you are using for your AROS desktop**.



You may notice a double pointer here. Don't worry, it's not a problem: just remember the right one is the biggest, and scroll down the *Display Mode* option list to match your current AROS resolution. Use a **uaegfx** voice. Then click on SAVE. **Janus-UAE** window size will change accordingly.

Manual integration
You can always integrate your own KickStart and AmigaOS files. Just remember that:
- **AmigaOS system files must be copied in the System drawer** (which has a disk icon with a boing ball over it)
- **Application files must be copied in the Work drawer** (in Extras:68K/Work)
- **Amiga ROM images must be placed in the "rom" drawer**.

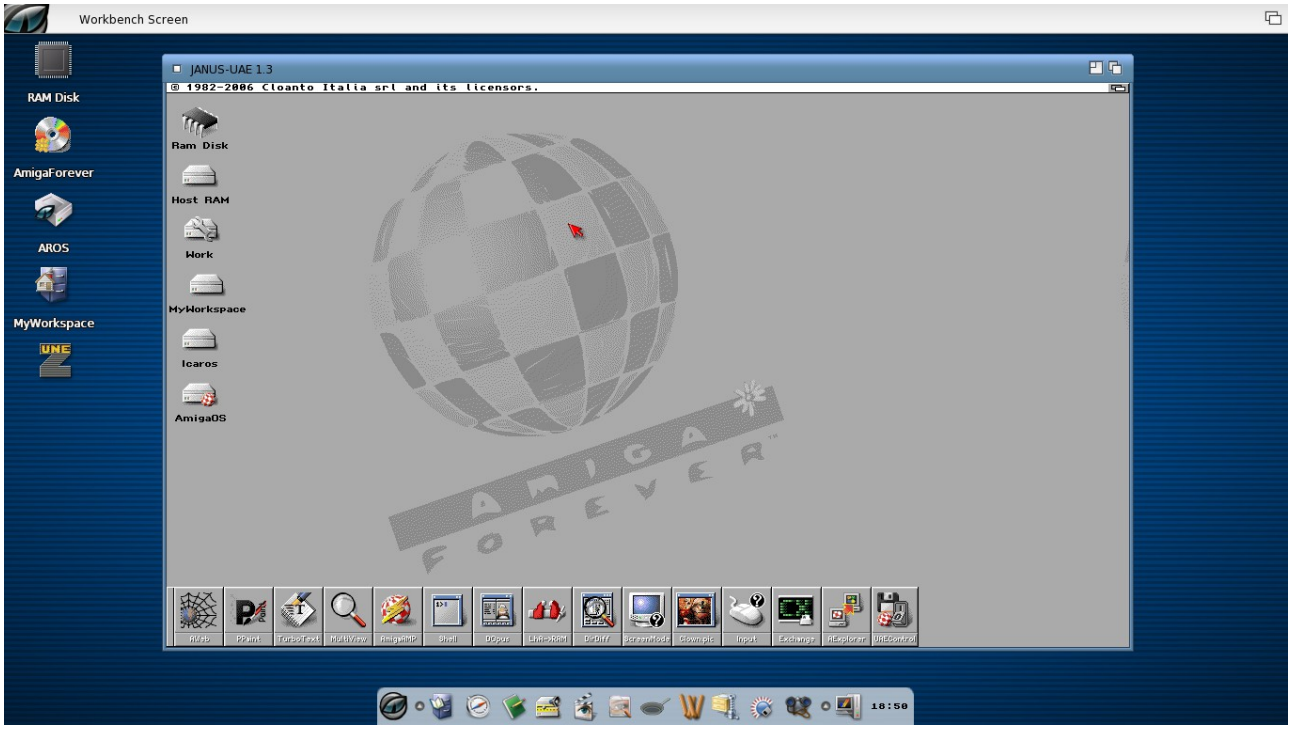
You can use the Amibridge: assign for your convenience.

8.4.2 Running AmigaOS™ 3.X

Once installation has ended, two new entries will appear in AmiStart's AmiBridge menu:

ScreenMode → will run AmigaOS™ screen mode preferences without coherency mode. This will allow you to change the emulated Amiga resolution after you've changed the AROS one.

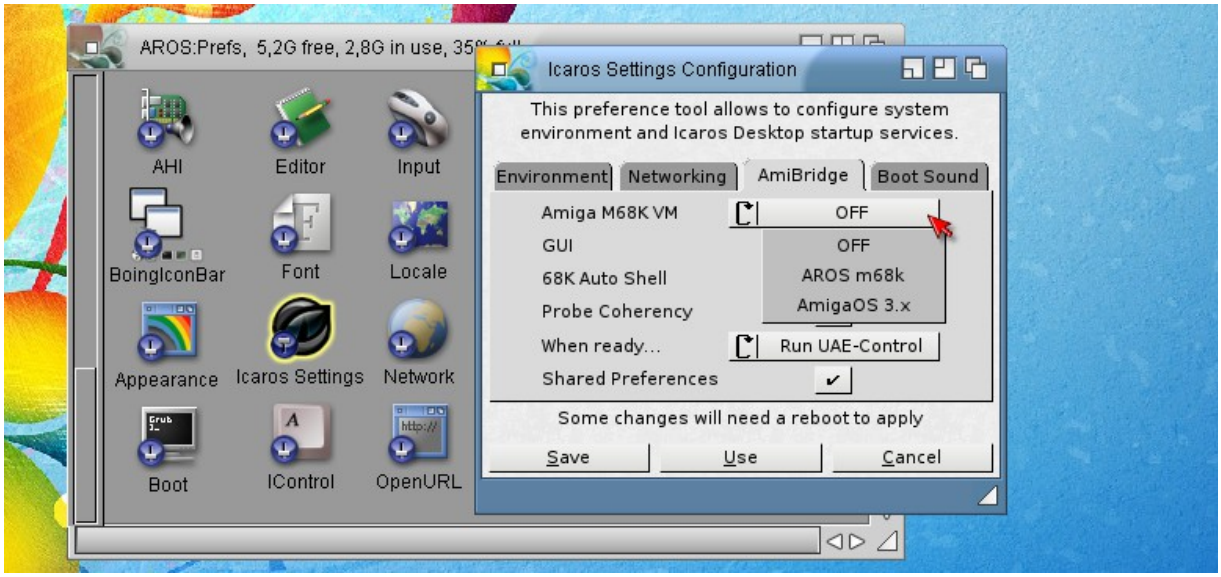
Workbench → will run AmigaOS™ inside Icaros Desktop, either in coherency mode or not – depending by your other settings in AmiBridge pref program and Janus-UAE GUI.



AmigaOS applications can obviously run in coherency mode as they do with AROS.

8.4.3 Running AmiBridge at startup

Normally, you are supposed to run the Amiga™ environment only when needed. However, if you heavily use M68K applications, you can run the whole AmiBridge sub-system at startup. To do this, please run the Icaros Settings preferences program, and move to the AmiBridge panel.



Look at the **Amiga M68K VM** field. You'll have three options:

OFF → selected by default. No Amiga virtual machine will be loaded at Icaros startup
AROS m68K → the AROS M68K environment will be loaded at startup, using current preset and current advanced options
AmigaOS 3.X → AmiBridge will start AmigaOS 3.X, once integrated from Amiga Forever, using current preset and advanced options. It won't work without AmigaOS already installed.

Beware of the fact that the AmiBridge sub-system requires a lot of computing resources. It may noticeably slow down any other host operation and heavily impact on x86-side performances. You're not expected to run this option unless you're always using classic applications for your personal productivity.

8.5 AROS 68K vs AmigaOS™ 3.X

What's better? Both choices have their pros and their cons. AROS M68K allow a better integration of 68K applications into the x86 desktop, does not require much configuration efforts and, best of all, comes for free with Icaros Desktop. On the other hand, AmigaOS 3.X is perfectly compatible and does not suffer of some glitches in coherency mode, however you have to grab it from your old Amiga™ computer or buy Amiga Forever from Cloanto to get it (www.amigaforever.com). Here is a little comparison table, to help you decide. Don't forget, anyway, that AmiBridge can use both!

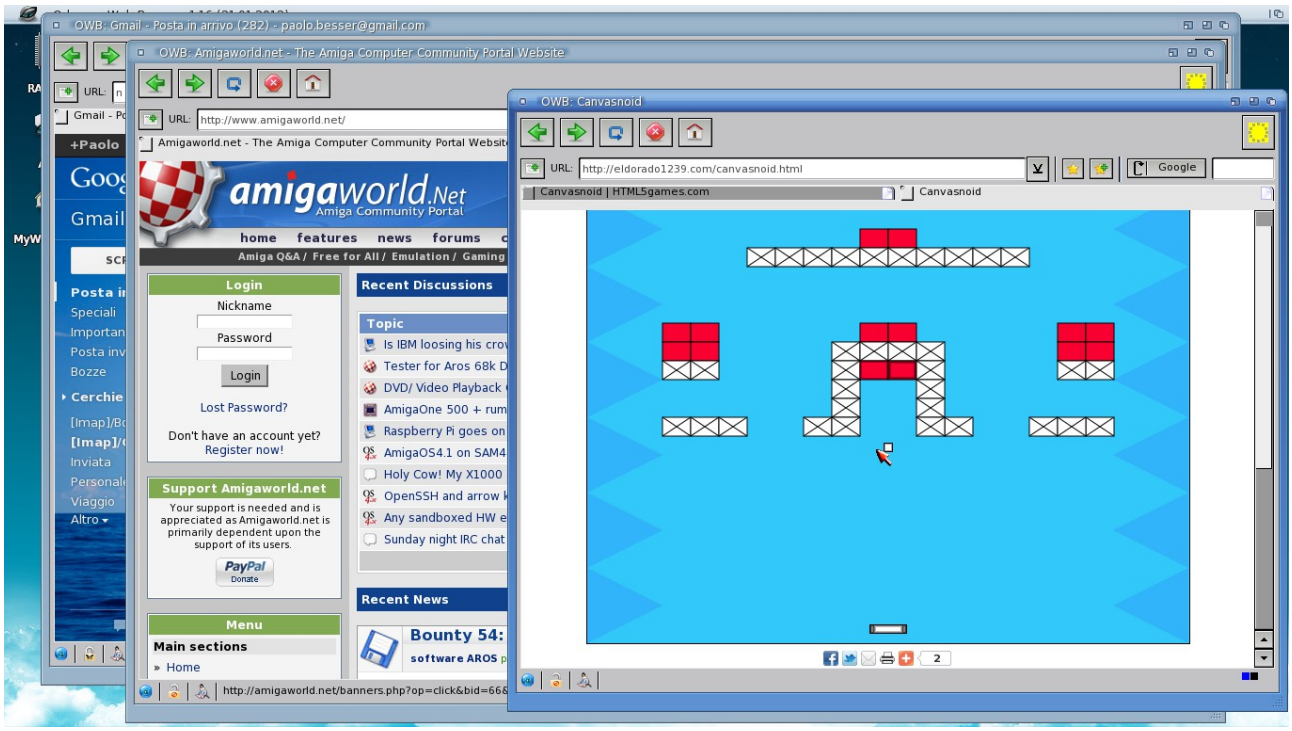
Feature / OS	AROS 68K	AmigaOS 3.x
Automatic screen resolution	Yes	No
Shared settings for locale, input, fonts, Zune and pointer	Yes	No
Compatibility with classic software	Good	Perfect
Coherency mode	Yes	Yes
Icaros 68K apps setup	Ready	Manual
Original KickStart	Not needed	Needed
Initial configuration	Not needed	Needed
Shared clipboard	Yes	Yes
Shared FS volumes	Yes	Yes
Sound	Good	Better
Network Support	No	No
Mouse syncronization	Perfect	Good
Set up phase	Not needed	Needed

Right menus with AROS 68K in coherency mode
The old bug which forbid using right click menus on AROS 68K has been fixed with Janus-UAE 1.4, included in Icaros Desktop 2.0.

9. Something you should know about applications

Ok, we have learnt how to use Icaros Desktop tools and functions. Now it's time to discover what you can actually DO with Icaros Desktop' collection of software. There are many many things you can do.

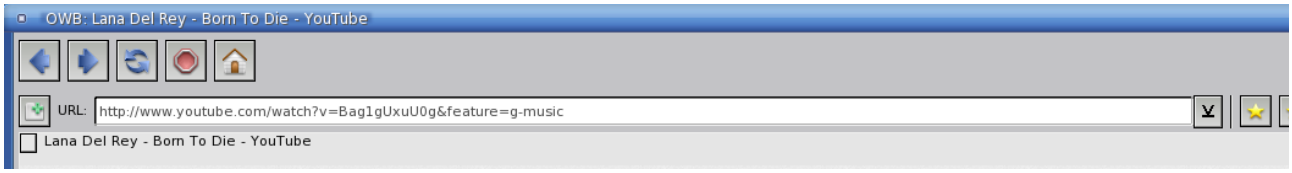
9.1 Browsing the web with Odyssey Web Browser



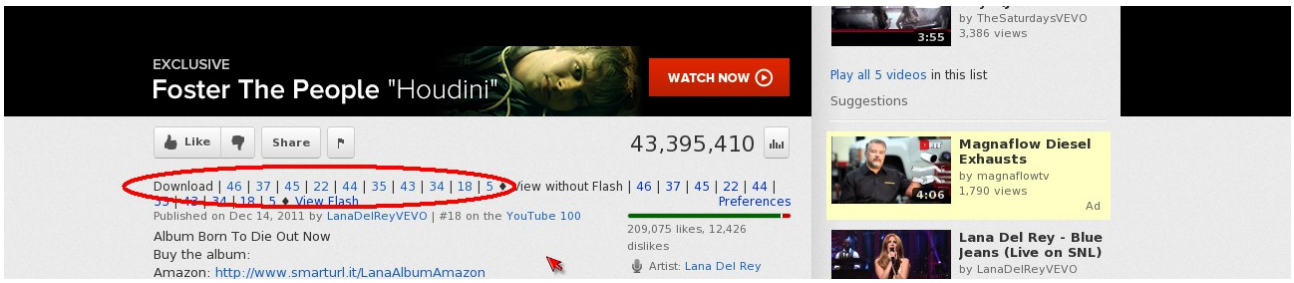
Odyssey Web Browser (OWB) is a powerful and modern web browser based on webkit, and is already available on many other platforms. Although being new to the game, this browser is already reliable and provides support for many Internet sites such as Google Docs, Google Earth, Gmail, Facebook and every Amiga community portal, like amigaworld.net, amiga.org and many others. AROS OWB also supports tab-browsing: to open a new tab, just right click on the tab title and select tabs > open new tab. OWB supports Javascript and HTML5: you can play games and use web applications based on both technologies, but there is a limitation for this release. You can't play movies or music, since codecs aren't supported yet. Maybe someday they will, so don't be sad. There's already a open bounty to encourage development.

9.1.1 Watch YouTube videos with OWB and MPlayer

While waiting for better support of HTML5 multimedia features, we can call MPlayer to play video contents on YouTube and some other websites (have a look at OWB's *Window → Scripts* option). Icaros Desktop 1.4.2 comes already configured to do this, however this option will be available only once the operating system has been installed onto the hard drive or any other writable media. **You can't play YouTube videos in Live!-DVD mode**. The steps to do so are quite easy.


OWB: Lana Del Rey - Born To Die - YouTube
URL: http://www.youtube.com/watch?v=Bag1gUxuU0g&feature=g-music
Lana Del Rey - Born To Die - YouTube

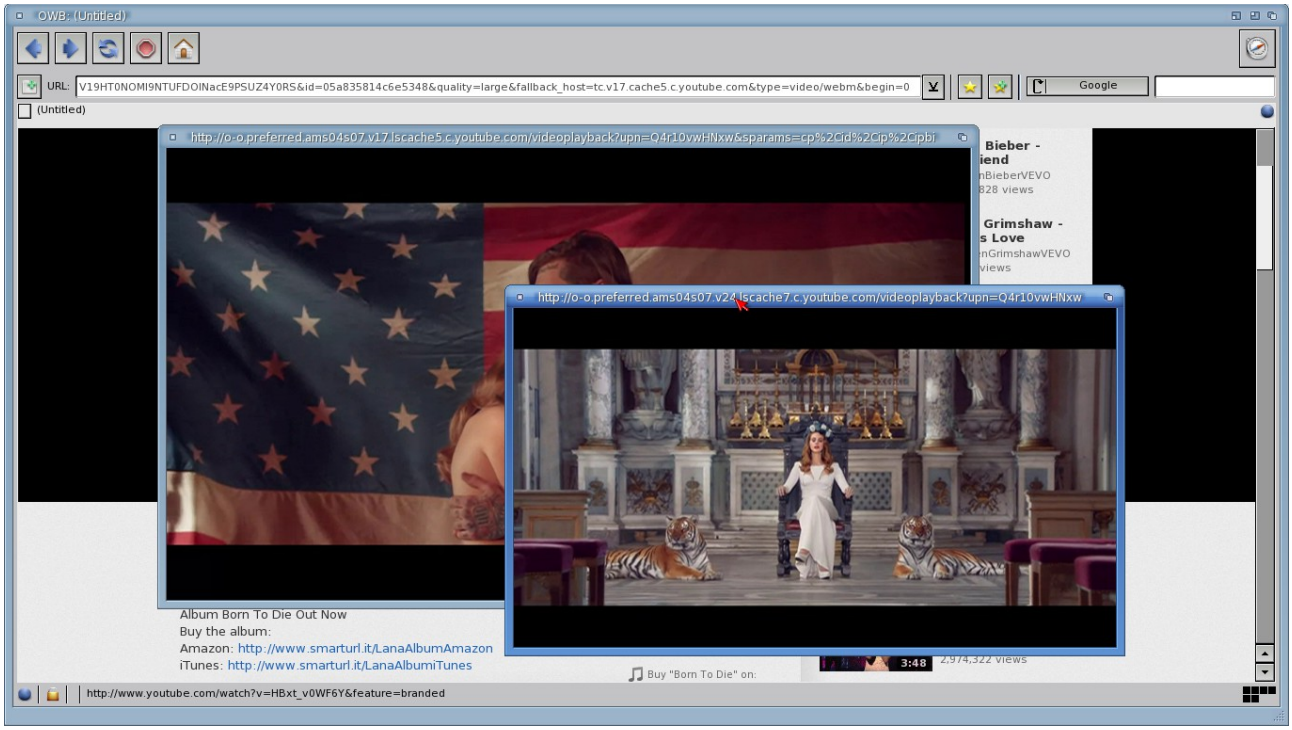
First of all, enter the URL of your favourite video as usual. You can also get to YouTube from a link placed on any popular website like Twitter, YouTube, Google and so on. In practice, do whatever you'd do on any other browser/operating system.


EXCLUSIVE
Foster The People "Houdini"
WATCH NOW
Like
Share
43,395,410
Download | 46 | 37 | 45 | 22 | 44 | 35 | 43 | 34 | 18 | 5 ♦ View without Flash | 46 | 37 | 45 | 22 | 44 |
Preferences
Published on Dec 14, 2011 by LanaDelReyVEVO | #18 on the YouTube 100
Album Born To Die Out Now
Buy the album:
Amazon: http://www.smarturl.it/LanaAlbumAmazon
209,075 likes, 12,426 dislikes
Artist: Lana Del Rey
by TheSaturdaysVEVO
3,386 views
Play all 5 videos in this list
Suggestions
Magnaflow Diesel Exhausts
by magnaflowtv
1,790 views
Ad
Lana Del Rey - Blue Jeans (Live on SNL)
by LanaDelReyVEVO

You may be prompted that your browser doesn't support HTML5 video. Ignore this message, since 1) it's true, and 2) it won't matter for now. In order to play movie, we won't be using HTML5 features, but a JavaScript which parses YouTube pages to turn main movie options (like change resolution and select HD) into plain HTML links.

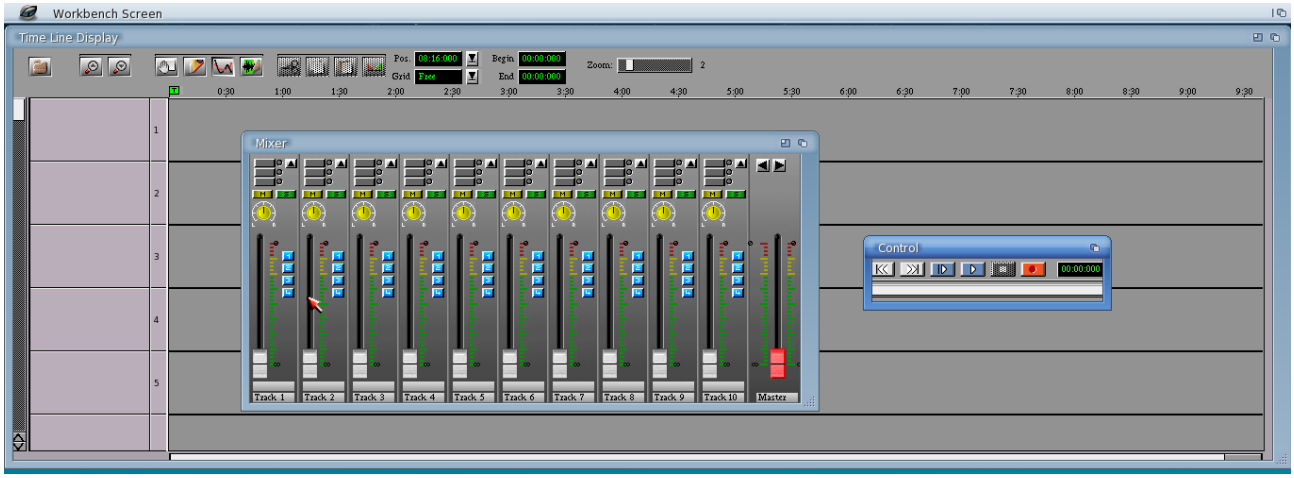
Scroll down the page a little, and after some seconds you'll notice some new links that usually don't appear on other platforms. They are in the form *Download, some numbers, View without Flash, other numbers, View Flash*. The only part which interests are the numbers immeately after Downloads. They will vary from movie to movie, however the general rule is that numbers in the 40 range are different resolutions: the bigger the number, the higher the resolution. In this example...

...46, 45, 44 and 43 are all different versions of the same movie, with 43 being the smallest available resolution and 46 the bigger. The ability to play each resolution will vary. The more complex and bigger will be the frames, the more CPU and GPU horsepower will be needed to play them smoothly. In the following screenshot, we have opened two different resolutions of the same video, 44 and 43, just to show you the differences:



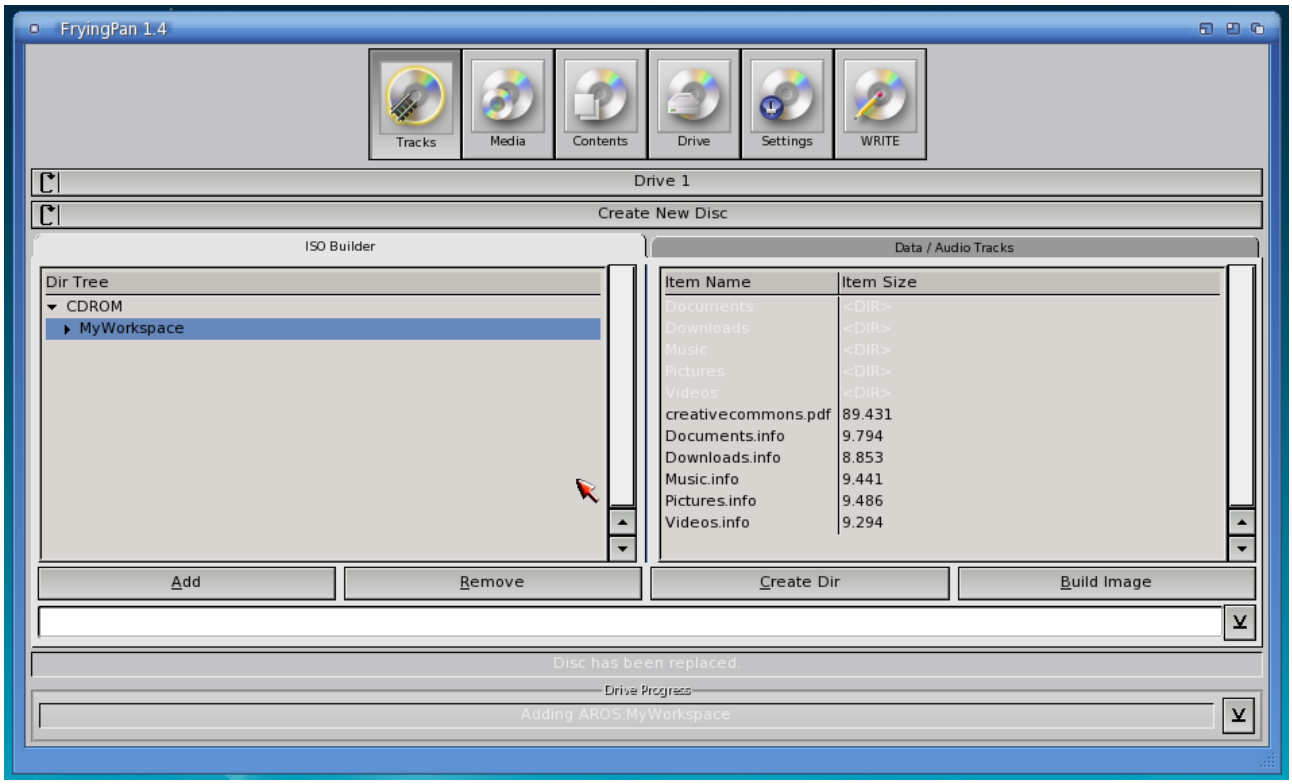
In order to enable a similar technology for other media sites, you must edit javascript files located in the OWB directory, enable them with the Window → Scripts option and eventually add/modify MimeTypes in Settings → Preferences → MimeTypes to use a external viewer.

9.2 Record your music like professionals do, with AudioEvolution 4



AudioEvolution 4 is the best audio-recording tool for the Amiga platform. Still developed by its author Davy Wentzler (who also coded some of the audio drivers provided by Icaros Desktop), it allows multi-track management, sampling and sound effects.

9.3 Burn your DVDs with FryingPan



While former versions of Icaros Desktop included a demo of FryingPan, which was still a commercial program, Icaros 1.4 provides the recently re-released open source version, freshly recompiled for AROS. In order to use it, you should select your drive first, choosing the right device in the 'Drive' options of the upper bar. If you're using a internal drive, you may choose the ata.device, while usbscsi.device will be good for USB connected drives.

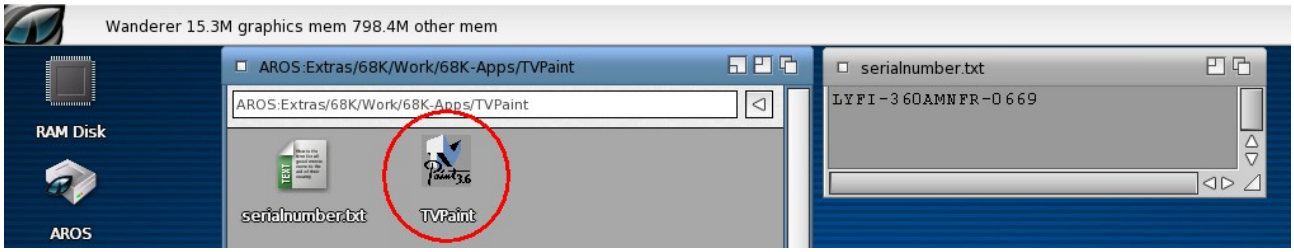
9.4 68K Applications

Icaros Desktop comes with a nice (and increasing) selection of programs originally written for the Commodore Amiga, whose distribution rights have been granted by the original authors either directly (under their written permission) or indirectly (redistribution allowed by a newer open source / public domain or freeware license).

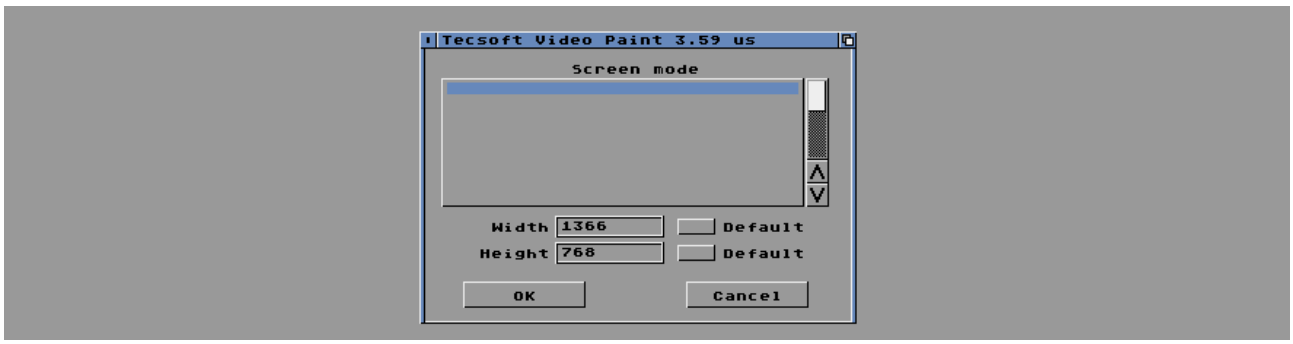
9.4.1 TVPaint

TVPaint is a well-known free-hand painting program written by a French company named TVPaint Développement SARL and which till today is still being developed for mainstream platforms. Version 1 of this application had been released for the Amiga in 1991 and we kindly have granted permission to add version 3.5.9 to our distribution. You can learn more about current and past TVPaint solutions at **www.tvpaint.com** website.

To run TVPaint you need to set up and run the M68K environment. Please see chapter 8 to learn how to do that. Once you're done, you can start the application:



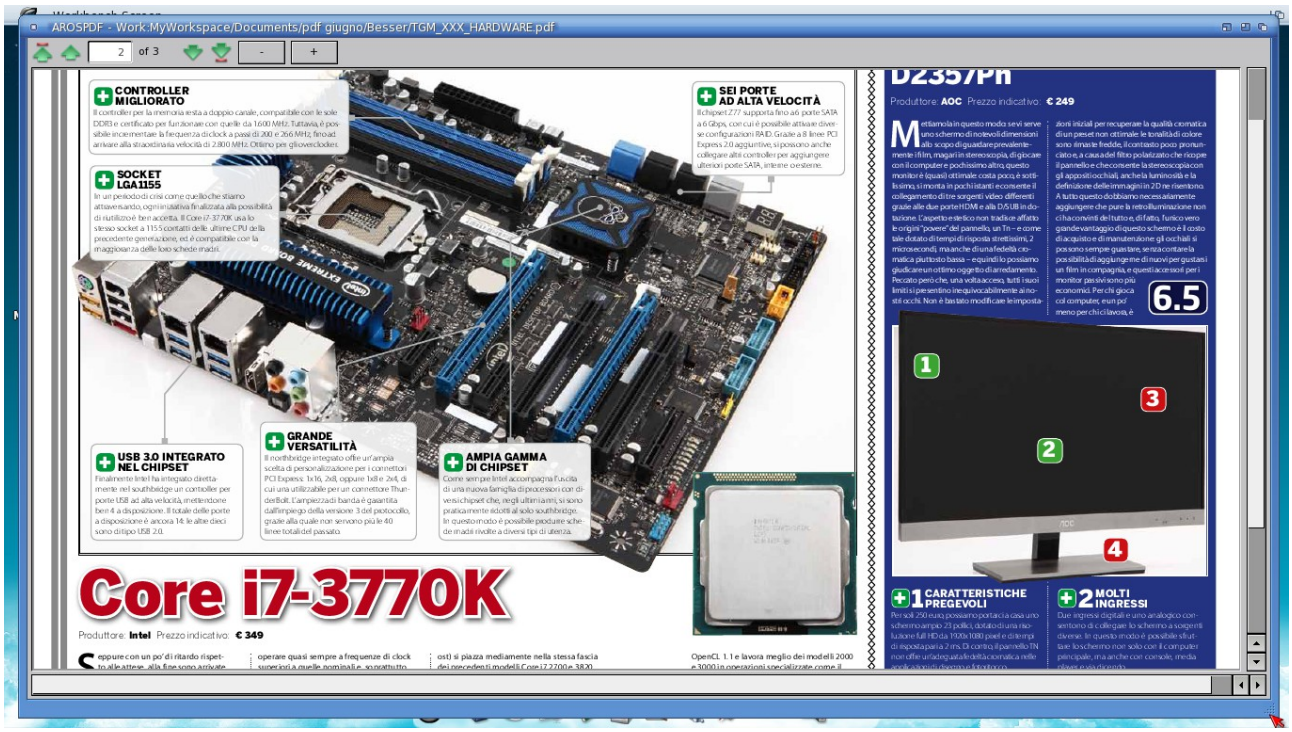
Choose your favourite resolution:



Enter your personal data and this registration key: **`LYFI-360AMNFR-0699`**

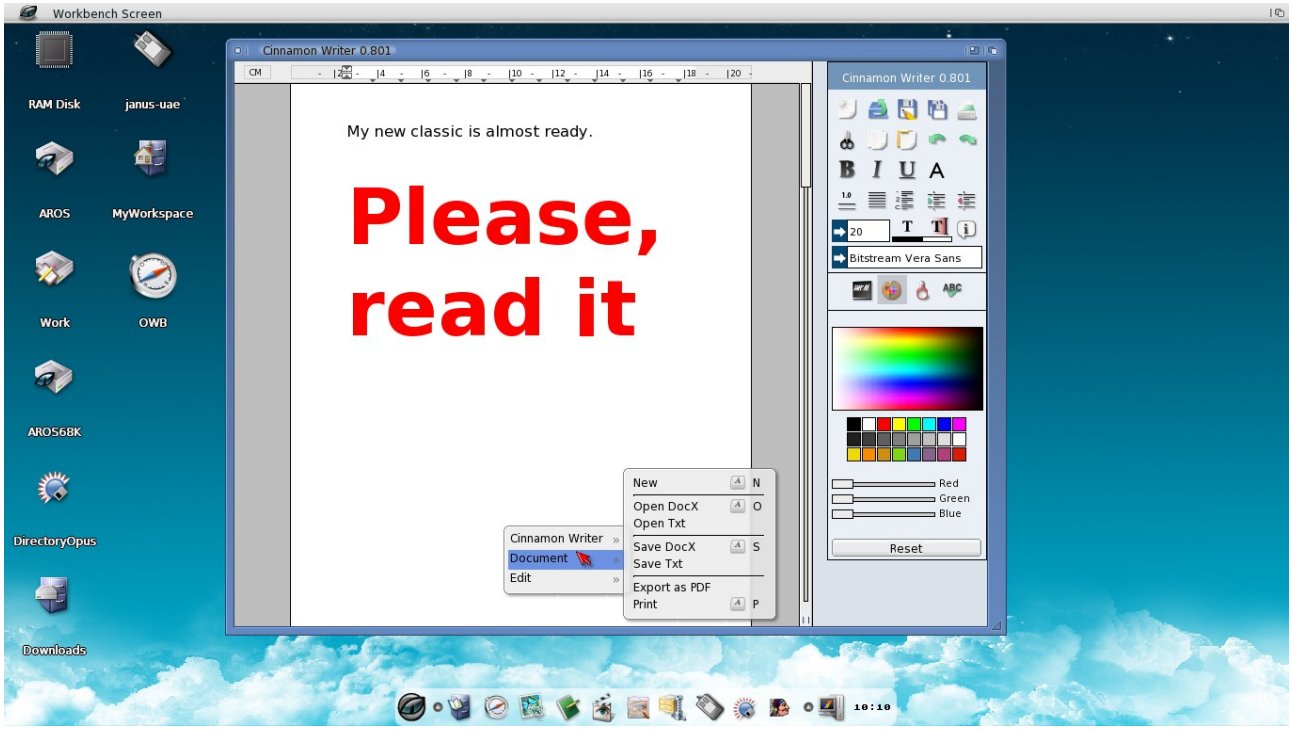
Then you will be able to start painting. Please notice there are a quick-start guide and a user manual in the application drawer, in PDF format. You may use ArosPDF to read them (see chapter 9.5).

9.5 Read your PDF files with ArosPDF



ArosPDF is Icaros Desktop' embedded PDF reader. PDF files can be opened both by double clicking on their icons, and by formerly running ArosPDF from AmiStart or Wanderer.

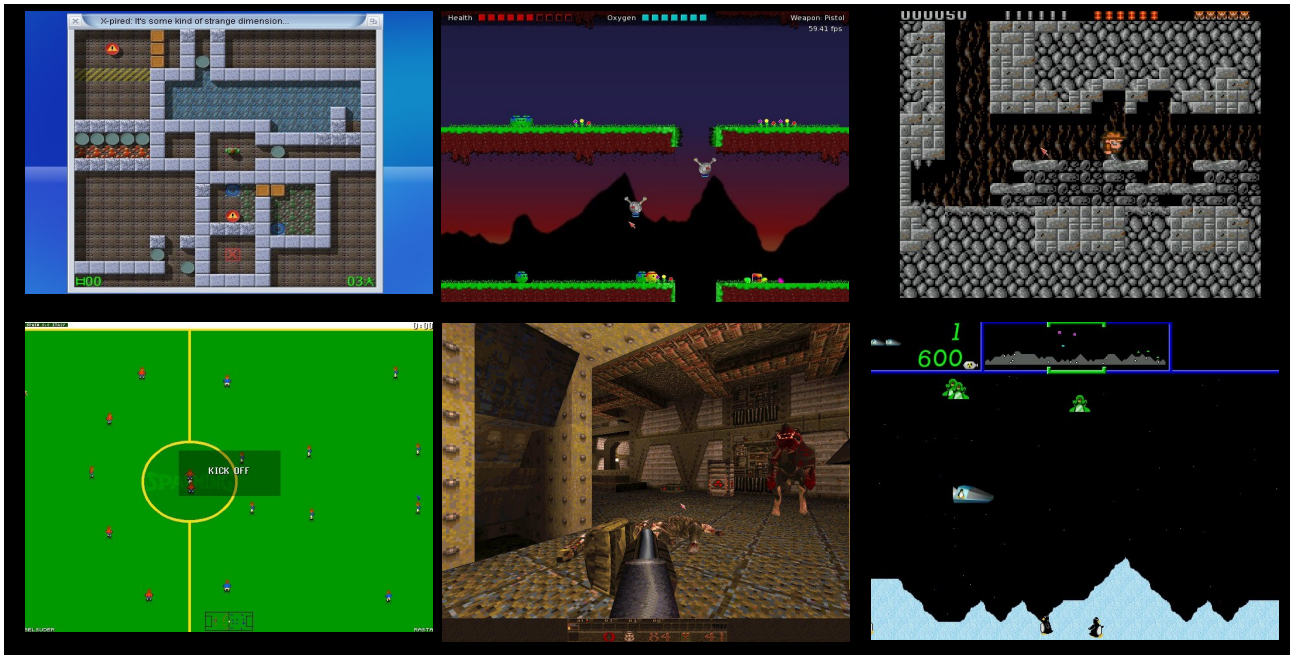
9.6 Write your best-seller with Cinnamon Writer



Cinnamon Writer is a new, Amiga-based word processor with text formatting features, able to open and save .docx files and, best of all, to export them to PDF files. This is still a early version, but really promising. We could include this release thanks to Pascal Papara and, obviously, Claus Desler.

9.7 Play many SDL games and some great classics

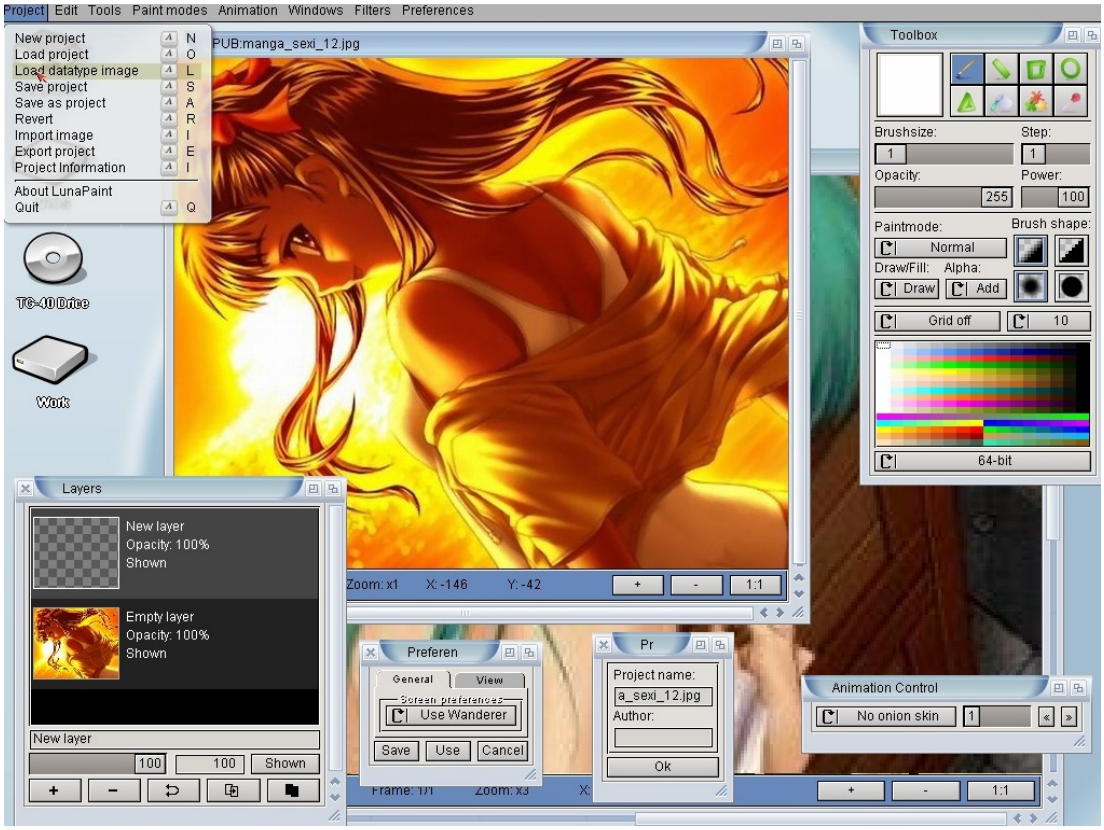
The Commodore Amiga® has been a great gaming platform. Icaros Desktop offers a wide choice of games you can relax with: the shareware episodes of **Doom** and **Quake**, a big selection of SDL library-based games like **Blob Wars**, **X-Penguin** and others, the great *Revolution Software* classic adventure **Beneath a Steel Sky** and many, many others. And, if that isn't enough, Icaros Desktop also provides emulators for all 8-bit Commodore computers, for the Sony PlayStation™ and other exciting gaming platforms of the gold age.



If you have problems running games and emulators with the ATI or Nvidia driver, please boot Icaros Desktop in VESA mode, with a 32 bit palette.

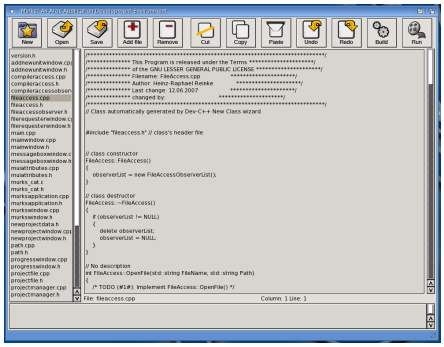
9.7 Paint your pictures with LunaPaint

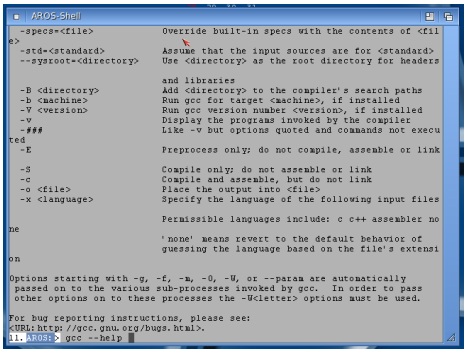
LunaPaint has probably been the first real AROS-based application. It's a paint and photo-editing software using layers and nowadays features, with a simple menu and tool-based graphic interface. Load and edit your images or create a new one from scratch: LunaPaint will help your creativity in a funny way.



9.8 Develop your applications with GCC and Murks! IDE

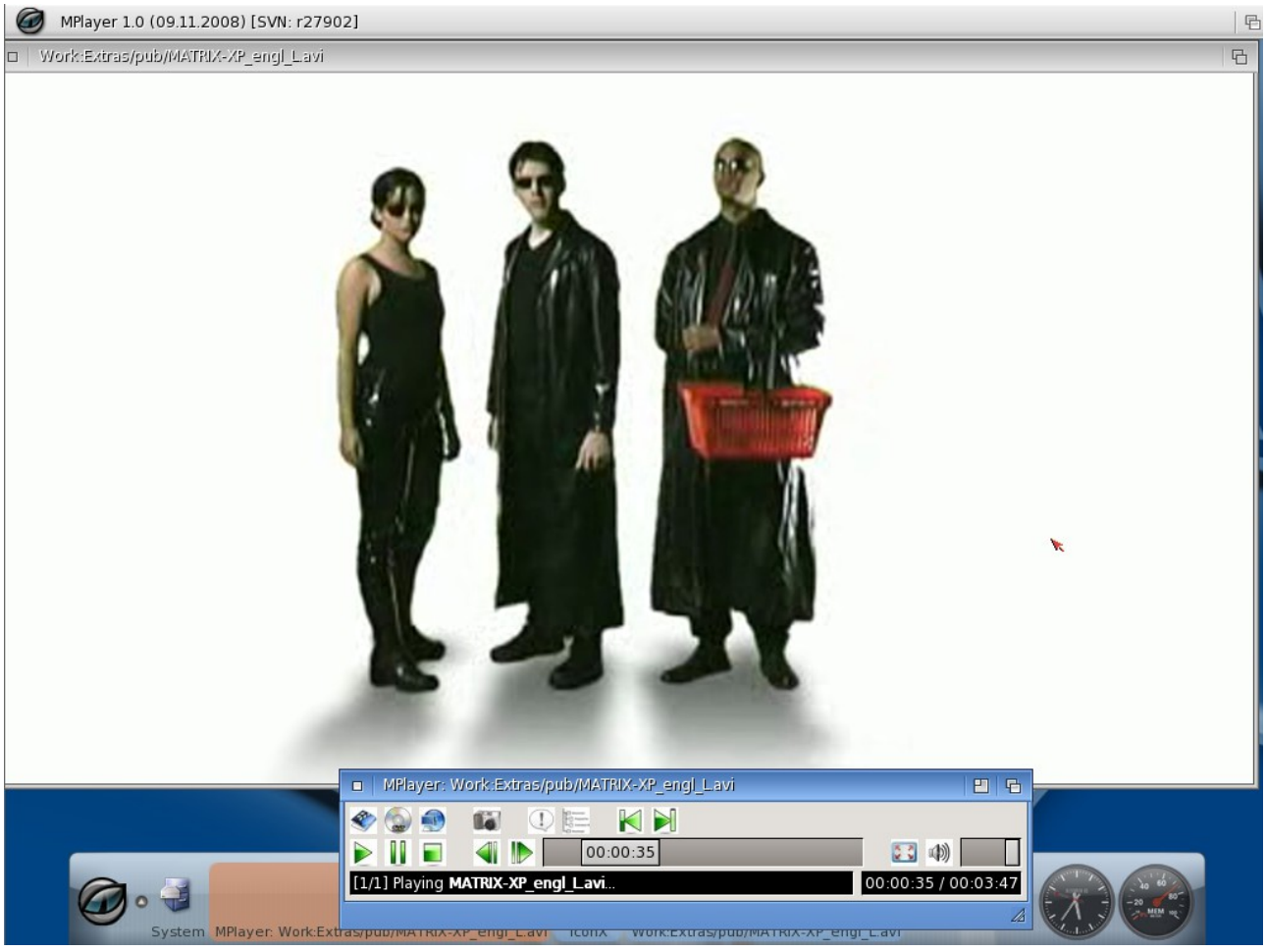
Icaros Desktop provides a full development chain based on gcc version 4.4.2 which includes all needed tools to build AROS itself and its applications. Murks!IDE is a graphic integrated development environment which should speed up your work. Besides with gcc, you can also find other programming languages (python, perl, lua, PortablE, false, bwbasic), libraries (SDL, mesa, libidl, etc) and many, many examples.





9.9 Play your favourite music, DVD and videos with Mplayer

Mplayer is a full-featured multimedia player which allows you to have an amazing media experience even in un-accelerated VESA modes. It plays the most popular audio and video file formats, including MP3, DivX, XviD and many, many, many others. It can play DVDs as well.

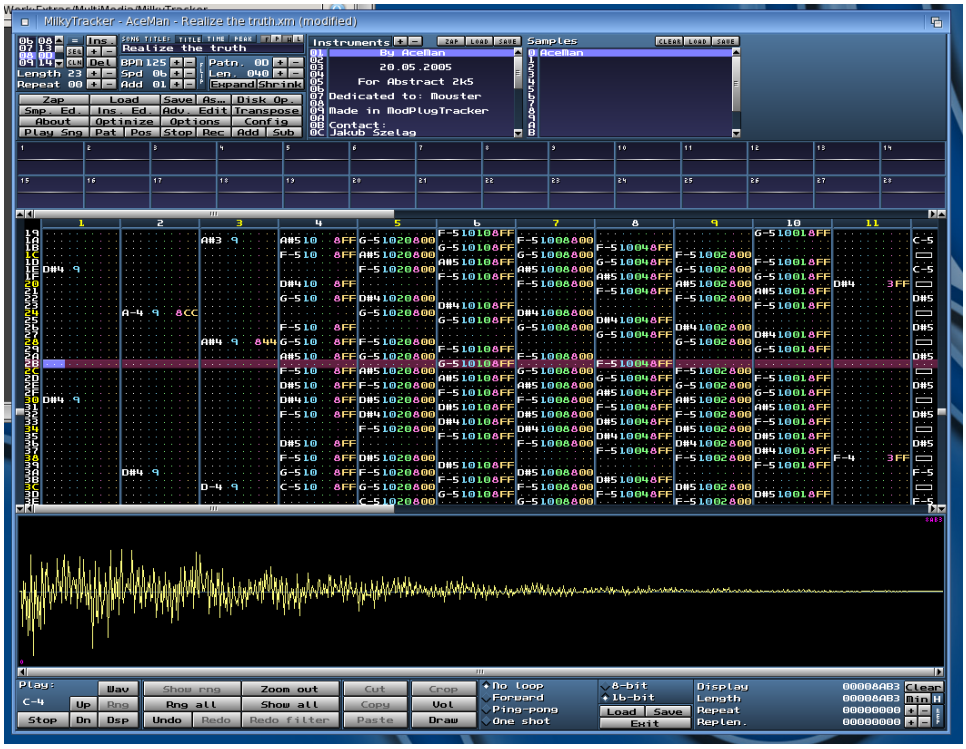


9.10 Locate your friends of Messenger with SabreMSN

Icaros Desktop provides a MSN client called **SabreMSN**. There are currently some minor issues regarding file transfers and using of international characters. They will be fixed soon.

9.11 Make your own music with HivelyTracker, MilkyTracker and ProTrekkr

Trackers were Amiga's best known music tools, allowing people to use sampled instruments in a easy and reliable way. **HivelyTracker, Protrekkr and MilkyTracker** are available on many platforms, and on AROS as well.



10. Credits

Icaros Desktop includes work from various artists, musicians and coders, which has been used free-of-charge under written permission. We'd kindly like to thank them for their contribution, because they made our distribution better and more complete. In particular, we'd like to mention

Alexander Karpenko

He's the author of “Abstract colors”, the image we used as desktop wallpaper for Icaros 2.0 series. See more of his work here, http://aik-art.deviantart.com

Andrea Lazzarotto

He's the author of “Eat Triviality”, the amusing image we used as desktop wallpaper in Icaros 1.5. Originally his image was about Linux, but he kindly gave us permission to use it and he personally modified it to better fit our “AROS needs”. :-)
Find him and his blog here, *http://andrealazzarotto.com*.

Delta Nine

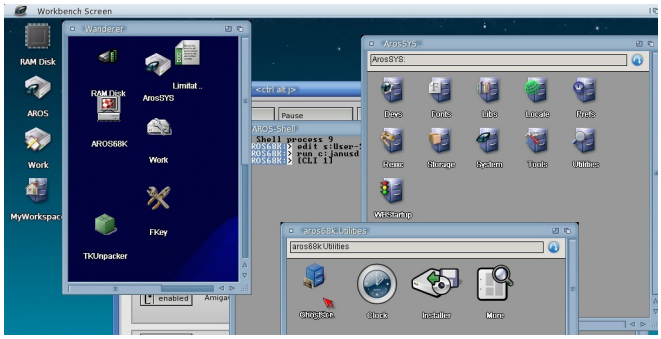
He's the author of “Magic Falls”, the wonderful picture used as desktop wallpaper in Icaros 1.4. You can see other works from him at **http://delta909.deviantart.com**.

Mark Sheeky

Back in the 90s, he's been a prolific author of public domain games for the Amiga computers. He kindly allowed us to freely redistribute his games with Icaros Desktop. You can find them in the AmiBridge menu, in the Scorpius Games drawer. His website is **http://marksheeky.co.uk**.

Olaf Schönweiß

Olaf is the author and mantainer of AROS VISION, the first distribution of AROS M68K. Although we didn't include the whole distribution into our M68K environment, Olaf gave us many precious hints and solved many little problems we both met during integration. In the following screenshot, you will see his distribution running in coherency mode inside Icaros Desktop (the whole screenshot had been published on May 30th, 2012 on amiganews.it forum). **http://www.natami-news.de/html/aros_vision.html**



Poke53280

They are authors of Hurrican, wonderful remake of the Amiga classic Turrican. Meet them at this address, **http://turrican.gamevoice.de/hurrican_site**.